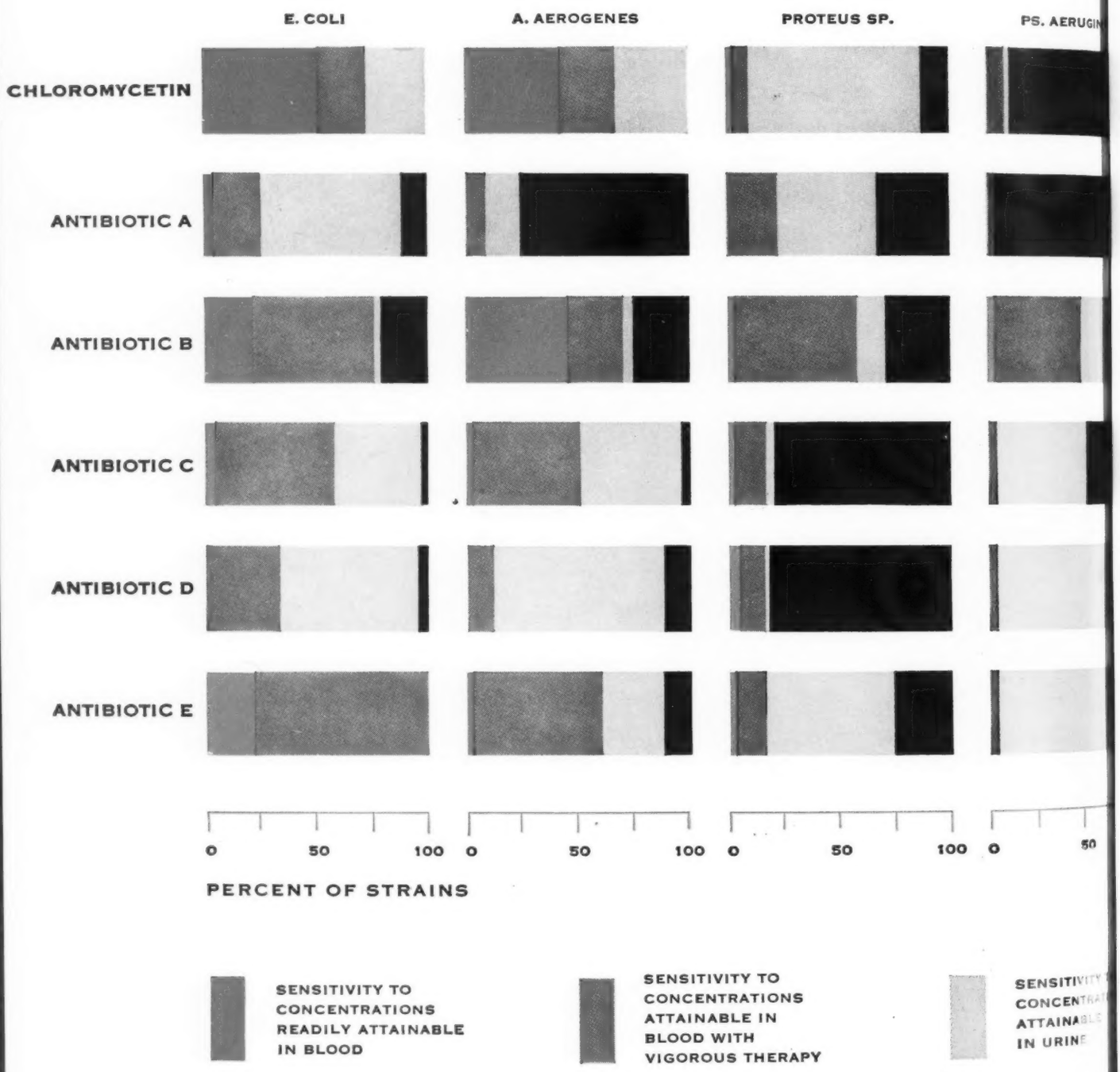
The Journal

of the Michigan State Medical Society

lume 54 | November, 1955 | Number 11

Resistance of Common Urinary Tract Pathogens to CHLOROMYCETIN and Other Major Antibiot



THE JOURNAL
of the Michigan State Medical Society

VOLUME 54 NOVEMBER, 1955 NUMBER 11

Contributors to This Issue

NATHAN LEVITT

R. M. MCKEAN

F. E. SENEAR

On Page 1344

Outline of the 1956 Michigan Clinical Institute

"A Truly Stupendous Scientific Session"

Table of Contents

THE JOURNAL
of the Michigan State Medical Society

VOLUME 54 NOVEMBER, 1955 NUMBER 11

Office of Publication
2642 University Avenue
Saint Paul 14, Minnesota

Editor
WILFRID HAUGHEY, M.D.
610 Post Bldg., Battle Creek, Michigan

Secretary and Business Manager of THE JOURNAL
L. FERNALD FOSTER, M.D.
Thorne Bldg., 919 Washington Ave.
Bay City, Michigan

Executive Director
WM. J. BURNS, LL.B.
606 Townsend Street, Lansing 15, Michigan

All communications relative to exchanges, books for review, manuscripts, should be addressed to Wilfrid Haughey, M.D., 610 Post Bldg., Battle Creek, Michigan.

All communications regarding advertising and subscription should be addressed to Wm. J. Burns, 2642 University Avenue, Saint Paul 14, Minnesota, or 606 Townsend Street, Lansing 15, Michigan. Telephone Ivanhoe 57125.

Published monthly by the Michigan State Medical Society as its official journal at 2642 University Avenue, Saint Paul 14, Minnesota.

Entered at the post office at Saint Paul, Minnesota, as second class matter, May 7, 1930, under the Act of March 3, 1879.

Acceptance for mailing at special rate of postage provided for in Section 1103 Act of October 3, 1917, authorized August 7, 1918.

Yearly subscription rate, $6.00; single copies, 60 cents. Additional postage; Canada, $1.00 per year; Pan-American Union, $2.50 per year; Foreign, $2.50 per year.

PRINTED IN U.S.A.

OFFICERS OF THE SOCIETY
1955-1956

President.....W. S. JONES, M.D.....Menominee
President-Elect.....ARCH WALLS, M.D.....Detroit
Secretary.....L. FERNALD FOSTER, M.D.....Bay City
Treasurer.....W. A. HYLAND, M.D.....Grand Rapids
Speaker.....J. E. LIVESAY, M.D.....Flint
Vice Speaker.....K. H. JOHNSON, M.D.....Lansing
Editor.....WILFRID HAUGHEY, M.D.....Battle Creek

THE COUNCIL

D. BRUCE WILEY, M.D., *Chairman*, Utica
W. B. HARM, M.D., *Vice Chairman*, Detroit
L. FERNALD FOSTER, M.D., *Secretary*, Bay City

	District		Term Expires
A. E. SCHILLER, M.D.	1st	Detroit	1956
O. B. McGILLICUDDY, M.D.	2nd	Lansing	1960
G. W. SLAGLE, M.D.	3rd	Battle Creek	1960
RALPH W. SHOOK, M.D.	4th	Kalamazoo	1956
J. D. MILLER, M.D.	5th	Grand Rapids	1956
H. H. HISCOCK, M.D.	6th	Flint	1956
H. B. ZEMMER, M.D.	7th	Lapeer	1957
L. C. HARVIE, M.D.	8th	Saginaw	1957
G. B. SALTONSTALL, M.D.	9th	Charlevoix	1957
W. S. STINSON, M.D.	10th	Bay City	1957
W. M. LEFEVRE, M.D.	11th	Muskegon	1958
B. T. MONTGOMERY, M.D.	12th	Sault Ste. Marie	1958
T. P. WICKLIFFE, M.D.	13th	Calumet	1959
B. M. HARRIS, M.D.	14th	Ypsilanti	1959
D. BRUCE WILEY, M.D.	15th	Utica	1960
G. THOMAS McKEAN, M.D.	16th	Detroit	1960
W. B. HARM, M.D.	17th	Detroit	1958
WILLIAM BROMME, M.D.	18th	Detroit	1959
W. S. JONES, M.D.	President		Menominee
ARCH WALLS, M.D.	President-Elect		Detroit
J. E. LIVESAY, M.D.	Speaker		Flint
K. H. JOHNSON, M.D.	Vice Speaker		Lansing
L. FERNALD FOSTER, M.D.	Secretary		Bay City
W. A. HYLAND, M.D.	Treasurer		Grand Rapids
R. H. BAKER, M.D.	Immediate Past President		Pontiac

EXECUTIVE COMMITTEE OF THE COUNCIL

D. BRUCE WILEY, M.D.....Chairman
W. B. HARM, M.D.....Vice Chairman
W. M. LEFEVRE, M.D.....Chairman, County Societies Committee
G. B. SALTONSTALL, M.D.....Chairman, Publication Committee
RALPH W. SHOOK, M.D.....Chairman, Finance Committee
J. E. LIVESAY, M.D.....Speaker, House of Delegates
K. H. JOHNSON, M.D.....Vice Speaker, House of Delegates
W. S. JONES, M.D.....President
ARCH WALLS, M.D.....President-Elect
L. FERNALD FOSTER, M.D.....Secretary
W. A. HYLAND, M.D.....Treasurer

SECTION OFFICERS

Medicine
J. R. Brink, M.D.....Grand Rapids
Chairman
R. A. Gerisch, M.D.....Detroit
Secretary

Surgery
J. W. Logie, M.D.....Grand Rapids
Chairman
E. T. Thieme, M.D.....Ann Arbor
Secretary

Gynecology and Obstetrics
Ferdinand Gaensbauer, M.D.....Pontiac
Chairman
H. B. Rice, M.D.....Detroit
Secretary

Dermatology and Syphilology
Donald Boersma, M.D.....Grand Rapids
Chairman
Coleman Mopper, M.D.....Detroit
Secretary

Pediatrics
J. E. Webber, M.D.....Grand Rapids
Chairman
Bernard Bernbaum, M.D.....Detroit
Secretary

Radiology, Pathology, Anesthesiology
E. D. Conner, M.D.....Birmingham
Chairman (Anes.)
C. Allen Payne, M.D.....Grand Rapids
Vice Chairman (Path.)
C. P. Truog, M.D.....Grand Rapids
Secretary (Rad.)

General Practice
R. F. Fenton, M.D.....Detroit
Chairman
J. E. Wentworth, M.D.....Flint
Secretary

Ophthalmology and Otolaryngology
G. H. Mehney, M.D.....Grand Rapids
Chairman (Ophth.)
J. D. Flynn, M.D.....Grand Rapids
Co-Chairman (Oto.)
C. W. Lepard, M.D.....Detroit
Secretary (Ophth.)
H. M. Blackburn, M.D.....Grand Rapids
Co-Secretary (Oto.)

Urology
B. W. Dovitz, M.D.....Detroit
Chairman
H. V. Morley, M.D.....Detroit
Secretary

Public Health and Preventive Medicine
W. B. Prothro, M.D.....Grand Rapids
Chairman
V. K. Volk, M.D.....Saginaw
Secretary

Nervous and Mental Diseases
I. A. LaCore, M.D.....Pontiac
Chairman
C. H. Ward, M.D.....Detroit
Secretary

Gastroenterology and Proctology
James A. Ferguson, M.D.....Grand Rapids
Chairman
R. C. Connelly, M.D.....Detroit
Secretary

DELEGATES TO A. M. A.

Delegates

W. A. Hyland, M.D., Grand Rapids, *Chairman*.....1955
W. D. Barrett, M.D., Detroit.....1956
J. S. DeTar, M.D., Milan.....1955
W. H. Huron, M.D., Iron Mountain.....1956
R. A. Johnson, M.D., Detroit.....1955
R. L. Novy, M.D., Detroit.....1956

Alternates

W. W. Babcock, M.D., Detroit.....1955
O. J. Johnson, M.D., Bay City.....1955
C. I. Owen, M.D., Detroit.....1956
E. F. Sladek, M.D., Traverse City.....1955
J. R. Rodger, M.D., Bellaire.....1956
G. W. Slagle, M.D., Battle Creek.....1956

Section Delegate

G. C. Penberthy, M.D.....Detroit

MSMS Committee Personnel 1955-1956

RHEUMATIC FEVER CONTROL COMMITTEE

S. T. Harris, M.D., *Chairman*.....220 Pearl, Ypsilanti
R. E. Fisher, M.D., *Vice Chairman*....158 Capital Ave., Battle Creek
E. W. Adams, M.D.....517 Wildwood Ave., Jackson
P. S. Barker, M.D.....University Hospital, Ann Arbor
J. G. Bielawski, M.D.....922 Maccabees Bldg., Detroit
Moses Cooperstock, M.D.....105 S. Front St., Marquette
Carleton Dean, M.D.....252 Hollister Bldg., Lansing
G. E. Hause, M.D.....16520 Grand River, Detroit 23
C. L. Hoogerland, M.D.....236 N. State, Alma
F. D. Johnson, M.D.....312 Paterson Bldg., Flint
V. B. Lancaster, M.D.....1206 Security Tower, Battle Creek
J. D. Littig, M.D.....1708 Embury Road, Kalamazoo
J. M. Murphy, M.D.....17700 Mack Ave., Grosse Pte. 36
A. E. Price, M.D.....313 David Whitney Bldg., Detroit 26
W. B. Prothro, M.D.....303 Ionia Ave. N.E., Grand Rapids
L. Paul Ralph, M.D.....833 Lake Dr. S.E., Grand Rapids
H. H. Riecker, M.D.....St. Joseph's Mercy Hospital, Ann Arbor
D. S. Smith, M.D.....824 Riker Bldg., Pontiac
R. D. Tupper, M.D.....15101 W. 7 Mile Rd., Detroit
Frank Van Schoick, M.D.....419 W. High St., Jackson
J. E. Wentworth, M.D.....1651 Chevrolet Ave., Flint
Mr. James Gerity, Jr., *Advisor*.....Gerity-Mich. Corp., Adrian
Thomas Francis, Jr., M.D., *Advisor*.....School of Public Health Univ. of Mich., Ann Arbor
L. Fernald Foster, M.D., *Secretary*....919 Washington Ave., Bay City
Leon DeVel, M.D., *Medical Coordinator*....739 Plymouth Blvd., S.E., Grand Rapids

VENEREAL DISEASE CONTROL COMMITTEE

A. C. Curtis, M.D., *Chairman*.....University Hospital, Ann Arbor
Ruth Herrick, M.D., *Vice Chairman*.....26 Sheldon Ave. S.E. Grand Rapids
J. A. Cowan, M.D.....Mich. Dept. of Health, Lansing
D. K. Hibbs, M.D.....622 Post Bldg., Battle Creek
H. L. Keim, M.D.....1110 David Broderick Tower, Detroit
H. E. Lichtwardt, M.D.....413 Professional Bldg., Detroit
L. W. Shaffer, M.D.....325 Kercheval Ave., Grosse Pte. Farms
Frank Stiles, M.D.....2014 Mich. Nat'l Tower, Lansing
R. S. Breakey, M.D., *Advisor*....1211 Bank of Lansing Bldg., Lansing

CANCER CONTROL COMMITTEE

W. A. Hyland, M.D., *Chairman*.....110 E. Fulton St., Grand Rapids
H. M. Pollard, M.D., *Vice Chairman*.....University Hospital, Ann Arbor
F. W. Bald, M.D.....610 Mott Foundation Bldg., Flint
R. E. Carlson, M.D.....Commercial Bank Bldg., Iron Mountain
E. I. Carr, M.D.....300 W. Ottawa, Lansing
C. P. Chrest, M.D.....458 W. South St., Kalamazoo
M. A. Darling, M.D.....673-4 Fisher Bldg., Detroit
R. J. Fortner, M.D.....137 Portage St., Three Rivers
L. E. Holly, M.D.....878 N. Second St., Muskegon
J. M. Hubly, M.D.....1407 Security Nat'l Bank Bldg., Battle Creek
Mr. D. E. Johnson.....211 E. Court St., Flint
H. M. Nelson, M.D.....1067 Fisher Bldg., Detroit
R. E. Olsen, M.D.....St. Joseph's Mercy Hospital, Pontiac

MATERNAL HEALTH COMMITTEE

P. E. Sutton, M.D., *Chairman*.....629 Washington Square Bldg., Royal Oak
Francis Jones, Jr., M.D., *Vice Chairman*....716 Mich. Nat'l Tower, Lansing
F. W. Bald, M.D.....610 Mott Foundation Bldg., Flint
C. M. Bell, M.D.....12-18 Monroe Ave. N.E, Grand Rapids
H. K. Brukardt, M.D.....Electric Square Bldg., Menominee
G. B. Corneliuson, M.D.....Michigan Dept. of Health, Lansing
A. L. Foley, M.D.....Rogers City
Margaret S. Hersey, M.D.....4407 Bronson Blvd., Kalamazoo
E. S. Hoffman, M.D.....766 Fisher Bldg., Detroit
W. C. Lambert, M.D.....Huetter Bldg., Marquette
H. W. Longyear, M.D.....3019 N. Woodward, Royal Oak
A. G. McCuaig, M.D.....719 S.W. Capital Ave, Battle Creek
N. F. Miller, M.D.....University Hospital, Ann Arbor
H. A. Ott, M.D.....3019 N. Woodward, Royal Oak
C. S. Stevenson, M.D.....1405 Kales Bldg., Detroit
D. W. Thorup, M.D.....610 Fidelity Bldg., Benton Harbor
C. E. Toshach, M.D.....333 S. Jefferson Ave., Saginaw
Kathryn D. Weburg, M.D.....Petoskey
H. R. Williams, M.D.....200 N. Ingalls St., Ann Arbor
Viola G. Brekke, M.D., *Advisor*.....2763 W. 8 Mile Rd., Detroit
Mary Lou Byrd, M.D., *Advisor*.....700 Kent Hills Dr. N.E., Grand Rapids
L. Paul Ralph, M.D., *Advisor*.....833 Lake Dr. S.E., Grand Rapids

TUBERCULOSIS CONTROL COMMITTEE

J. W. Towey, M.D., *Chairman*.....Pinecrest Sanatorium, Powers
W. B. Howes, M.D., *Vice Chairman*.....1800 Tuxedo Ave., Detroit
P. T. Chapman, M.D.....1151 Taylor Ave., Detroit
W. N. Davey, M.D.....University Hospital, Ann Arbor
J. L. Egle, M.D.....Northern Michigan TB San., Gaylord
L. R. Nelson, M.D.....Baldwin
R. L. Rapport, M.D.....715 Mott Foundation Bldg., Flint
W. F. Stephenson, M.D.....510 E. Walker St., St Johns
A. F. Stiller, M.D.....S.W. Michigan TB San., Kalamazoo
C. J. Stringer, M.D.....401 W. Greenlawn, Lansing
Kiyo Tashiro, M.D.....Grand View Hospital, Ironwood
S. A. Yannitelli, M.D.....132 W. Hamilton Lane, Battle Creek
G. T. McKean, M.D., *Advisor*....1515 David Whitney Bldg., Detroit

INDUSTRIAL HEALTH COMMITTEE

O. J. Johnson, M.D., *Chairman*.....207 N. Walnut, Bay City
O. J. Preston, M.D., *Vice Chairman*....300 N. Chevrolet Ave., Flint
S. E. Andrews, M.D.....224 E. Cedar St., Kalamazoo
J. D. Beall, M.D.....118½ E. Front St., Traverse City
T. I. Boileau, M.D.....7700 Russell, Detroit 11
H. S. Brown, M.D.....18101 James Couzens Hwy., Detroit
M. R. Burnell, M.D.....3301 Westwood Parkway, Flint
W. P. Chester, M.D.....5057 Woodward Ave., Detroit
E. B. Cudney, M.D.....Pontiac Motor Co., Pontiac
E. A. Irvin, M.D.....Ford Motor Co., Dearborn
M. W. Jocz, M.D.....341 Massachusetts Ave., Detroit
V. S. Laurin, M.D.....804 Hackley Union Bank Bldg., Muskegon
E. F. Lutz, M.D.....13-204 General Motors Bldg., Detroit
C. P. McCord, M.D.....Univ. Hosp., Ann Arbor
G. P. Moore, M.D.....302 E. Chapin, Cadillac
R. D. Mudd, M.D.....Chevrolet Grey Iron Foundry, Saginaw
P. J. Ochsner, M.D.....Fisher Body Plant, Lansing
H. A. Pinkerton, M.D.....Newport Hospital, Ironwood
D. M. Richmond, M.D.....314½ State St., St. Joseph
N. W. Scholle, M.D.....2500 Peck St., Muskegon Heights
M. W. Shellman, M.D.....110 E. Fulton St., Grand Rapids
S. D. Steiner, M.D.....Oldsmobile Division, Lansing
A. J. Swingle, M.D.....84 W. Main St., Benton Harbor
C. D. Selby, M.D., *Advisor*.....1916 Military, Port Huron

IODIZED SALT COMMITTEE

B. E. Brush, M.D., *Chairman*.....2799 W. Grand Blvd., Detroit 2
H. A. Towsley, M.D., *Vice Chairman*.....University Hospital, Ann Arbor
L. A. Berg, M.D.....106 E. Chicago, Sturgis
J. B. Blodgett, M.D.....606 Kales Bldg., Detroit
J. R. Carney, M.D.....202 N. Park, Ludington
R. C. Moehlig, M.D.....964 Fisher Bldg., Detroit
R. L. Rapport, M.D.....715 Mott Foundation Bldg., Flint
J. M. Schroeder, M.D.....1115 Stockbridge, Iron Mountain
R. L. Waggoner, M.D.....120 W. Center St., St. Louis

MENTAL HEALTH COMMITTEE

I. A. La Core, M.D., *Chairman*....Pontiac State Hospital, Pontiac
Z. S. Bohn, M.D., *Vice Chairman*....327 Professional Bldg., Detroit
W. E. Clark, M.D.....136 W. Ash St. Mason
F. P. Currier, M.D.....26 Sheldon S.E., Grand Rapids
J. M. Dorsey, M.D.....65 Moss, Highland Park
T. J. Heldt, M.D.....Henry Ford Hospital, Detroit
L. E. Himler, M.D.....Mercywood Hospital, Ann Arbor
M. H. Hoffmann, M.D.....1311 David Whitney Bldg., Detroit
R. F. Kernkamp, M.D.....1204 David Broderick Tower, Detroit
M. H. Marks, M.D.....8233 W. Chicago Blvd., Detroit
P. A. Martin, M.D.....17185 Muirland, Detroit 21
F. O. Meister, M.D.....806 Security Tower, Battle Creek
C. J. Mumby, M.D.....1409 Pontiac State Bank Bldg., Pontiac
W. A. Obenauf, M.D.....Ypsilanti State Hospital, Ypsilanti
R. W. Waggoner, M.D.....Neuropsychiatric Institute U. of M., Ann Arbor
E. M. Williamson, M.D.....315 Bronson Medical Center, Kalamazoo
H. A. Luce, M.D., *Advisor*.....629 David Whitney Bldg., Detroit
H. B. Zemmer, M.D., *Advisor*.....311 Clay Street, Lapeer

CHILD WELFARE COMMITTEE

R. M. Heavenrich, M.D., *Chairman*.....529 W. Genesse, Saginaw
W. S. Jones, Jr., M.D., *Vice Chairman*.....1146 Tenth Ave., Menominee
G. E. Anthony, M.D.....1015 Detroit St., Flint
F. A. Barbour, M.D.....1439 Mott Foundation Bldg., Flint
C. G. Benjamin, M.D.....600 Park St., Port Huron
R. T. Blackhurst, M.D.....Arcade Bldg., Midland
E. L. Cooper, M.D.....414 David Whitney Bldg., Detroit
V. G. Chabot, M.D.....206 W. Dunlap, Northville
G. B. Corneliuson, M.D.....Mich. Dept. of Health, Lansing
A. J. Cortopassi, M.D.....324 So. Washington, Saginaw
R. H. Criswell, M.D.....407 Phoenix Bldg., Bay City
Carleton Dean, M.D.....252 Hollister Bldg., Lansing

(Continued on Page 1272)

MSMS Committee Personnel 1955-1956

(Continued from Page 1270)

N. E. Durocher, M.D.....605 Pontiac State Bank Bldg., Pontiac
R. G. Ferris, M.D.....205 Hanna Bldg., Birmingham
J. P. Klein, M.D.....16 Sheridan, Fremont
O. L. Lepard, M.D.....104 S. Lakeview, Sturgis
W. K. Locklin, M.D.....136 E. Michigan, Kalamazoo
L. L. Loder, M.D.....Hackley Union Industrial Bldg., Muskegon
Don Marshall, M.D.....252 E. Lovell, Kalamazoo
R. J. Mason, M.D.....618 N. Woodward Ave., Birmingham
M. F. Osterlin, M.D.....Central Michigan Children's Clinic, Traverse City
M. H. Pike, M.D.....224 E. Larkin, Midland
A. E. Schultz, M.D.....119 E. Gr. River Ave., East Lansing
L. O. Shantz, M.D.....1239 Mott Foundation Bldg., Flint
L. P. Sonda, M.D.....544 David Whitney Bldg., Detroit
H. A. Towsley, M.D.....University Hospital, Ann Arbor
Frank Van Schoick, M.D.....419 W. High St., Jackson
E. H. Watson, M.D.....280 Barton Dr. N., Ann Arbor
C. F. Wible, M.D.....Sebewaing
R. K. Wise, M.D.....15801 W. McNichols Rd., Detroit

Subcommittee on Hearing Defects

R. H. Criswell, M.D., *Chairman*.....407 Phoenix Bldg., Bay City
A. J. Cortopassi, M.D., *Vice Chairman*.....324 S. Washington Ave., Saginaw
N. E. Durocher, M.D.....605 Pontiac State Bank Bldg., Pontiac
R. G. Ferris, M.D.....205 Hanna Bldg., Birmingham
W. S. Jones, Jr., M.D.....1146 Tenth Ave., Menominee
W. K. Locklin, M.D.....136 E. Michigan, Kalamazoo
M. H. Pike, M.D.....224 E. Larkin, Midland

Subcommittee on School Health Problems

V. G. Chabut, M.D., *Chairman*.....206 W. Dunlap, Northville
C. C. Benjamin, M.D., *Vice Chairman*.....600 Park St., Port Huron
G. B. Corneliuson, M.D. .....Mich. Dept. of Health, Lansing
L. O. Shantz, M.D.....1239 Mott Foundation Bldg., Flint
Frank Van Schoick, M.D.....419 W. High St., Jackson
E. H. Watson, M.D.....280 Barton Dr. N., Ann Arbor

Subcommittee of Ophthalmologists

Don Marshall, M.D., *Chairman*.....252 E. Lovell, Kalamazoo
F. A. Barbour, M.D., *Vice Chairman*....1439 Mott Foundation Bldg., Flint
R. T. Blackhurst, M.D.....Arcade Bldg., Midland
E. L. Cooper, M.D.....414 David Whitney Bldg., Detroit
A. E. Schultz, M.D.....119 E. Grand River Ave. E., Lansing

SCIENTIFIC RADIO COMMITTEE

H. A. Towsley, M.D., *Chairman*.....University Hospital, Ann Arbor
C. B. Beeman, M.D., *Vice Chairman*.....833 Lake Drive S.E., Grand Rapids
J. H. Buell, M.D.....901 David Whitney Bldg., Detroit
W. L. Foster, M.D.....2567 W. Grand Blvd., Detroit
C. F. Lemen, M.D.....216½ E. Front St., Traverse City
G. H. Scott, Ph.D.....Dean, Wayne Univ. Coll. of Medicine, Detroit
R. W. Teed, M.D.....215 S. Main, Ann Arbor
K. W. Toothaker, M.D.....930 N. Washington, Lansing
E. C. Vonder Heide, M.D.....17190 Strathmore, Detroit
J. M. Sheldon, M.D., *Advisor*.....University Hospital, Ann Arbor

GERIATRICS COMMITTEE

A. H. Price, M.D., *Chairman*.....62 W. Kirby, Detroit
F. C. Swartz, M.D., *Vice Chairman*.....215 N. Walnut, Lansing
C. H. Adams, M.D.....1114 Beach St., Flint
P. C. Gittins, M.D.....732 Maccabees Bldg., Detroit
R. M. Athay, M.D.....630 Merrick St., Detroit
F. W. Baske, M.D.....923 Maxine St., Flint
H. B. Bennett, M.D.....942 Maccabees Bldg., Detroit
J. R. Brink, M.D.....110 E. Fulton St., Grand Rapids
E. F. Crippen, M.D.....126½ State St., Mancelona
R. E. Dustin, M.D.....103 W. Brown, Tecumseh
G. S. Fisher, M.D.....1709 David Whitney Bldg., Detroit
W. D. Harrelson, M.D.....136 E. Michigan, Kalamazoo
E. J. Kulinski, M.D.....207 N. Walnut, Bay City
J. J. Lightbody, M.D.....501 David Whitney Bldg., Detroit
Herbert Rosenbaum, M.D.....19776 Snowden Ave., Detroit
J. M. Ryan, M.D.....19207 Schaefer Rd., Detroit 35
L. F. Segar, M.D.....1410 David Broderick Tower, Detroit
C. W. Sellers, M.D.....2314 W. Grand Blvd., Detroit
G. C. Thosteson, M.D.....1139 David Whitney Bldg., Detroit
S. C. Wiersma, M.D.....Hackley Union Bldg., Muskegon
C. S. Wilson, M.D.....10 Peterboro, Detroit
H. W. Woughter, M.D.....1312 Mott Foundation Bldg., Flint
W. M. LeFevre, M.D., *Advisor* ....289 W. Western Ave., Muskegon

Subcommittee on Diabetes Control

W. M. LeFevre, M.D., *Chairman*.....289 W. Western, Muskegon
Herbert Rosenbaum, M.D., *Vice Chairman*.....19776 Snowden Ave., Detroit
L. F. Segar, M.D.....1410 David Broderick Tower, Detroit
G. C. Thosteson, M.D.....1139 David Whitney Bldg., Detroit

PUBLIC RELATIONS COMMITTEE

C. A. Payne, M.D., *Chairman*.....1840 Wealthy Street S.E., Grand Rapids
R. W. Teed, M.D., *Vice Chairman*.....215 S. Main St., Ann Arbor
S. E. Andrews, M.D.....224 E. Cedar St., Kalamazoo
H. G. Bacon, Jr., M.D.....Scottville
J. F. Beer, M.D.....104 N. Riverside Drive, St. Clair
H. G. Benjamin, M.D.....72 Sheldon, S.E., Grand Rapids
F. C. Brace, M.D.....1498 Lake Drive S.E., Grand Rapids
M. W. Buckborough, M.D.....South Haven
J. W. Bunting, M.D.....110 N. First Ave., Alpena
M. O. Cantor, M.D.....666 Maccabees Bldg., Detroit
E. M. Chandler, M.D.....1407 Security Bank Bldg., Battle Creek
H. D. Dykhuizen, M.D.....710 Hackley Union Bldg., Muskegon
H. B. Fenech, M.D.....324 Professional Bldg., Detroit
E. H. Fenton, M.D.....15125 Grand River Ave., Detroit
R. A. Frary, M.D.....423 E. Elm Ave., Monroe
W. G. Gamble, Jr., M.D.....2010 Fifth Ave., Bay City
L. E. Grate, M.D.....112 Clinton St., Charlevoix
A. B. Gwinn, M.D.....City Bank Bldg., Hastings
S. W. Hartwell, M.D.....452 W. Western Ave., Muskegon
L. T. Henderson, M.D.....13038 E. Jefferson, Detroit
W. J. Herrington, M.D.....Bad Axe
E. J. Hill, M.D.....1536 David Whitney Bldg., Detroit
J. W. Jacobowitz, M.D.....49½ N. Main Street, Three Rivers
K. H. Johnson, M.D.....1116 Michigan Nat'l Tower, Lansing
R. C. Kingswood, M.D.....90 E. Warren, Detroit
J. L. Leach, M.D.....3007 Industrial Ave., Flint
Clayton Lewis, Jr., M.D.....326 Townsend St., Lansing
E. C. Long, M.D.....2626 Rochester, Detroit
F. E. Ludwig, M.D.....916 Seventh St., Port Huron
J. T. Manning, M.D.....922 S. Main St., St. Joseph
J. M. Markley, M.D.....849 W. Huron St., Pontiac
O. B. McGillicuddy, M.D.....1816 Michigan Nat'l Tower, Lansing
H. J. Meier, M.D.....87 W. Pearl St., Coldwater
G. E. Millard, M.D.....2900 W. Grand Blvd., Detroit
F. S. Oldham, M.D.....Breckenridge
E. S. Parmenter, M.D.....140 E. Washington, Alpena
R. C. Peckham, M.D.....Gaylord
J. K. Pedden, M.D.....445 Cherry St., S.E., Grand Rapids
G. N. Petroff, M.D.....1301 Pontiac State Bank Bldg., Pontiac
A. C. Pfeifer, M.D.....11610 N. Saginaw, Mt. Morris
W. Z. Rundles, M.D.....304 First Nat'l Bldg., Flint
Sydney Scher, M.D.....132 Cass Ave., Mt. Clemens
A. E. Schiller, M.D.....1737 David Whitney Bldg., Detroit
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
E. L. Spoehr, M.D.....22832 Woodward Ave., Ferndale
W. F. Strong, M.D.....800 Chippewa, Ontonagon
C. K. Stroup, M.D.....2002 Court St., Flint 3
R. L. Thirlby, M.D.....711 Second Street, Traverse City
T. J. Trapasso, M.D.....300 Court St., Sault Ste. Marie
C. J. Weston, M.D.....Matthews Bldg., Owosso
Wayne L. Whitaker, Ph.D.....University of Mich., Ann Arbor
V. M. Zerbi, M.D.....315 N. Adams St., Ypsilanti
L. Fernald Foster, M.D., *Advisor*....919 Washington Ave., Bay City
L. W. Hull, M.D., *Advisor*.....1701 David Whitney Bldg., Detroit
B. T. Montgomery, M.D., *Advisor*.....301 E. Soruce St., Sault Ste. Marie
T. P. Wickliffe, M.D., *Advisor*.....1167 Calumet Ave., Calumet

Subcommittee on Newspapers

C. L. Weston, M.D., *Chairman*.....Matthews Bldg., Owosso

Subcommittee on Radio and Television

A. E. Schiller, M.D., *Chairman*....1737 David Whitney Bldg., Detroit

Subcommittee on Education Program in Schools and Universities

H. J. Meier, M.D., *Chairman*.....87 W. Pearl St., Coldwater
K. H. Johnson, M.D., *Vice Chairman*....1116 Michigan Nat'l Tower, Lansing
O. B. McGillicuddy, M.D.....1816 Mich. Nat'l Tower, Lansing
P. S. Sloan, M.D.....214 Clark St., Houghton

PREVENTIVE MEDICINE COMMITTEE

W. S. Reveno, M.D., *Chairman*.....958 Fisher Bldg., Detroit
I. A. LaCore, M.D., *Vice Chairman*....Pontiac State Hospital, Pontiac
B. E. Brush, M.D.....2799 W. Grand Blvd., Detroit
A. C. Curtis, M.D.....University Hospital, Ann Arbor
S. T. Harris, M.D.....220 Pearl, Ypsilanti
R. M. Heavenrich, M.D.....529 W. Genesee, Saginaw
A. E. Heustis, M.D.....Mich. Dept. Health, Lansing
W. A. Hyland, M.D.....110 E. Fulton St., Grand Rapids
O. J. Johnson, M.D.....207 N. Walnut, Bay City
A. H. Price, M.D.....62 W. Kirby, Detroit
J. M. Sheldon, M.D.....University Hospital, Ann Arbor
P. E. Sutton, M.D.....629 Washington Sq. Bldg., Royal Oak
I. W. Towey, M.D.....Pinecrest Sanatorium, Powers
H. A. Towsley, M.D.....University Hospital, Ann Arbor

(Continued on Page 1274)

MSMS Committee Personnel 1955-1956

(Continued from Page 1272)

POSTGRADUATE MEDICAL EDUCATION COMMITTEE

J. M. Sheldon, M.D., *Chairman* (1956).....University Hospital, Ann Arbor
E. I. Carr, M.D., *Vice Chairman* (1958)....300 W. Ottawa, Lansing
D. A. Cameron, M.D., (1958)....2255 Fort St., Lincoln Park, Detroit
B. R. Corbus, M.D., (1957).....325 Union Ave. S.E., Grand Rapids
M. A. Darling, M.D., (1958).....673-4 Fisher Bldg., Detroit
A. C. Furstenberg, M.D., (1957)....Dean, Univ. Mich. Med School, Ann Arbor
J. R. Heidenreich, M.D., (1956).....Daggett
D. H. Kaump, M.D., (1956).....Providence Hospital, Detroit
R. M. McKean, M.D. (1956).....1515 David Whitney Bldg., Detroit
D. W. McLean, M.D., (1956).....1066 Fisher Bldg., Detroit
J. M. Robb, M.D., (1957).....633 David Whitney Bldg., Detroit
G. H. Scott, Ph.D., (1958).....Dean Wayne U. Coll. Med., Detroit
E. F. Sladek, M.D., (1957).....123 E. Front St., Traverse City
H. A. Towsley, M.D., (1957).....University Hospital, Ann Arbor
E. Gifford Upjohn, M.D., (1958).....301 Henrietta St., Kalamazoo
F. A. Weiser, M.D., (1956).....4162 John R., Detroit
H. H. Cummings, M.D., *Advisor*, (1958).....216 S. State St., Ann Arbor

ETHICS COMMITTEE

H. W. Porter, M.D., *Chairman*, (1958).....505 Wildwood Ave., Jackson
W. L. Harrigan, M.D. (1957) *Vice Chairman*, 408 E. Broadway, Mt. Pleasant
R. J. Hubbell, M.D., (1959).....252 E. Lovell, Kalamazoo
F. H. Lindenfeld, M.D., (1958).....8 N. St. Joseph St., Niles
E. A. Oakes, M.D., (1956).....401 River St., Manistee
E. A. Osius, M.D., (1956).....901 David Whitney Bldg., Detroit 26
A. H. Price, M.D., (1958).....62 W. Kirby, Detroit
W. F. Strong, M.D., (1956).....800 Chippewa, Ontonagon
C. E. Umphrey, M.D., (1959).....15300 W. McNichols Rd., Detroit
M. R. Weed, M.D., (1957).....1997 E. Grand Blvd., Detroit
J. Joseph Herbert, LL.B., *Advisor*.....127 S. Cedar, Manistique

LEGISLATIVE COMMITTEE

L. A. Drolett, M.D., *Chairman*.....903 Prudden Bldg., Lansing
O. B. McGillicuddy, M.D., *Vice Chairman*..1816 Mich. Nat'l Tower, Lansing
A. B. Aldrich, M.D.....503 Sheldon Ave., Houghton
William Bromme, M.D.....313 Professional Bldg., Detroit
G. V. Conover, M.D.....420 Genesee Bank Bldg., Flint
J. C. Elliott, M.D.....207½ E. Front St., Buchanan
O. K. Engelke, M.D.....729 E. Catherine St., Ann Arbor
N. J. Hershey, M.D.....1648 Broadway, Niles
M. H. Marks, M.D.....8233 W. Chicago Blvd., Detroit
P. T. Mulligan, M.D.....91 Cass St., Mt. Clemens
J. S. Rozan, M.D.....511 Bank of Lansing Bldg., Lansing
E. C. Swanson, M.D.....Vassar
H. A. Towsley, M.D.....University Hospital, Ann Arbor
R. V. Walker, M.D.....1255 David Whitney Bldg., Detroit
Arch Walls, M.D.....17201 W. McNichols Rd., Detroit
D. Bruce Wiley, M.D.....45310 Van Dyke, Utica

ADVISORY COMMITTEE TO WOMAN'S AUXILIARY

J. E. Livesay, M.D., *Chairman*.....Mott Foundation Bldg., Flint
A. B. Aldrich, M.D., *Vice Chairman*.....503 Sheldon Ave., Houghton
W. J. Butler, M.D.....519 Ship St., St. Joseph
D. F. Scott, M.D.....300 Court St., Sault Ste. Marie
W. L. Sherman, M.D.....413 Professional Bldg., Detroit

ADVISORY COMMITTEE TO MICHIGAN STATE MEDICAL ASSISTANTS SOCIETY

F. J. Busch, M.D., *Chairman*.....1731 North Mich., Ave., Saginaw
Ralph W. Shook, M.D., *Vice Chairman*.....136 E. Michigan Ave., Kalamazoo
R. W. Pomeroy, M.D.....609 N. Washington, Lansing
K. Sherrin, ...17535 James Couzens Hwy., Detroit
Otto Van der Velde, M.D.....33 W. 8th St., Holland
J. E. Webber, M.D.....310 E. Fulton St., Grand Rapids

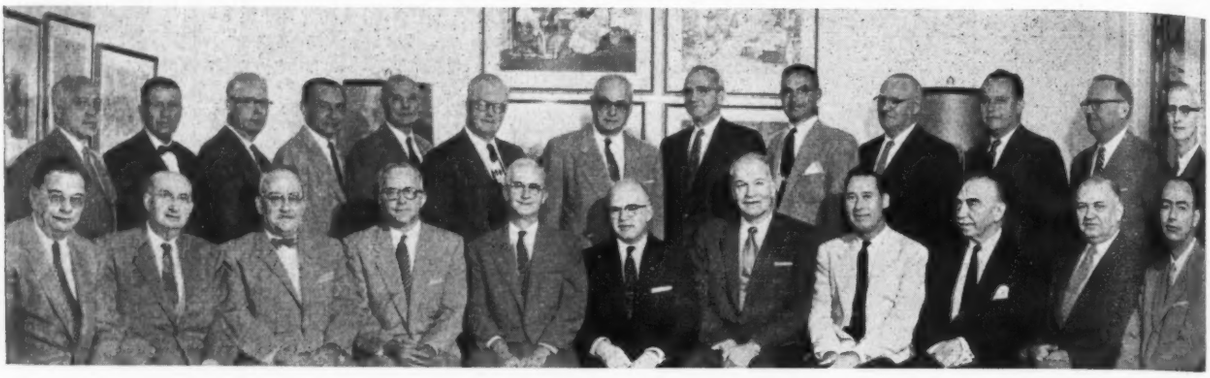
BEAUMONT MEMORIAL COMMITTEE

Otto O. Beck, M.D., *Chairman*.....280 W. Maple, Birmingham
L. J. Hirschman, M.D., *Vice Chairman*.....2619 Munson Ave., Traverse City
F. A. Coller, M.D.....University Hospital, Ann Arbor
G. T. Ekelund, M.D.....906 Riker Bldg., Pontiac
J. H. Fyvie, M.D.....202 S. Cedar, Manistique
S. W. Hoobler, M.D.....2228 Belmont Rd., Ann Arbor
W. M. LeFevre, M.D.....289 W. Western Ave., Muskegon
A. H. Whittaker, M.D.....1427 E. Jefferson Ave., Detroit
Dr. H. C. Fritsch, *Advisor*.....Parke Davis & Co., Detroit 32

MEDIATION COMMITTEE

Ralph Wadley, M.D., *Chairman*.....335 Seymour, Lansing
L. R. Leader, M.D., *Vice Chairman*.....1129 David Whitney Bldg., Detroit
D. R. Boyd, M.D.....1735 Peck St., Muskegon
A. E. Gamon, M.D.....514 First Savings & Loan Bldg., Saginaw
E. B. Johnson, M.D.....144 Brady, Allegan
W. Z. Rundles, M.D.....304 First Natl. Bldg., Flint
R. W. Teed, M.D.....215 S. Main St, Ann Arbor
Charles Ten Houten, M.D.....Paw Paw

You and Your Business



MEMBERS OF THE COUNCIL—1955-1956

Seated (left to right): W. M. LeFevre, M.D., Muskegon; W. B. Harm, M.D., Detroit; L. Fernald Foster, M.D., Bay City; J. E. Livesay, M.D., Flint; W. S. Jones, M.D., Menominee; D. Bruce Wiley, M.D., Utica, Chairman of The Council; Arch Walls, MD., Detroit, K. H. Johnson, M.D., Lansing; W. A. Hyland, M.D., Grand Rapids; Ralph W. Shook, M.D., Kalamazoo, and G. B. Saltonstall, M.D., Charlevoix.

Standing (left to right): B. M. Harris, M.D., Ypsilanti; J. D. Miller, M.D., Grand Rapids; H. H. Hiscock, M.D., Flint; William Bromme, M.D., Detroit; H. B. Zemmer, M.D., Lapeer; F. H. Drummond, M.D., Kawkawlin; Wilfrid Haughey, M.D., Battle Creek; B. T. Montgomery, M.D., Sault Ste. Marie; G. W. Slagle, M.D., Battle Creek; L. C. Harvie, M.D., Saginaw; G. T. McKean, M.D., Detroit; T. P. Wickliffe, M.D., Calumet, and R. H. Baker, M.D., Pontiac.

Absent on MSMS business at time photograph was taken: O. B. McGillicuddy, M.D., Lansing, and A. E. Schiller, M.D., Detroit.

HIGHLIGHTS OF THE SEPTEMBER SESSION OF THE COUNCIL

September 25 and 30, 1955

A total of one hundred and fifteen items was presented and discussed by the twenty-five members of The Council (eighteen Councilors, the President, President-Elect, Immediate Past President, Secretary, Treasurer, Speaker and Vice Speaker) at the two meetings held coincident with the MSMS Annual Session in Grand Rapids.

Three hundred and eighteen cumulative hours were contributed on these two days by the members of The Council to study and decide upon the problems facing the medical profession of Michigan, including:

- **Reorganization of the Council:** D. Bruce Wiley, M.D., of Utica, was elected as Chairman; W. B. Harm, M.D., Detroit, was chosen as Vice Chairman; William M. LeFevre, M.D., Muskegon, was selected as Chairman of the County Societies Committee; G. B. Saltonstall, M.D., Charlevoix, was again given the post of Chairman of the Publication Committee; and Ralph W. Shook, M.D., Kalamazoo, was re-elected head of the Finance Committee.

- **The monthly financial reports** were studied and approved, as well as bills payable which were ordered paid.

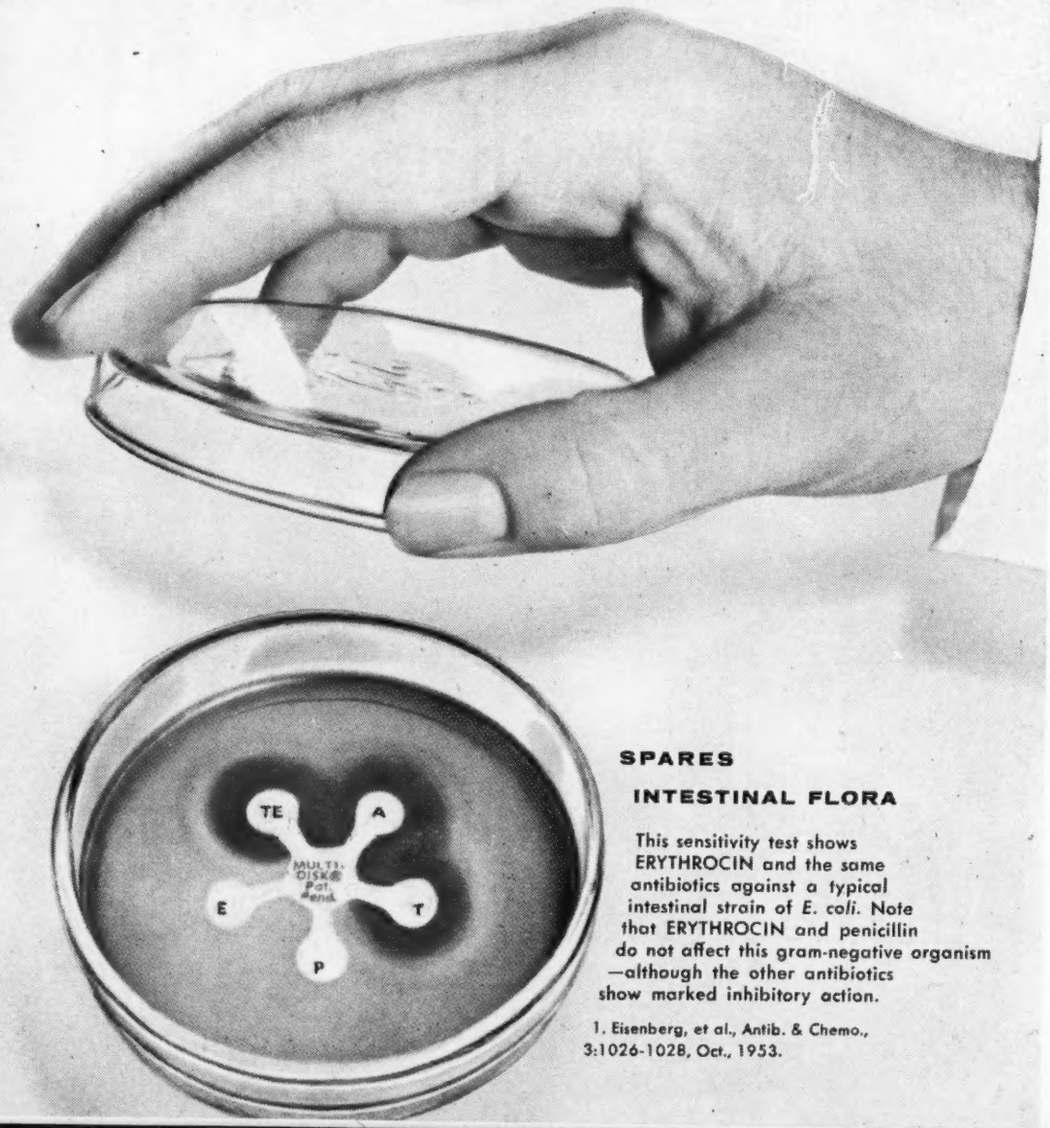
- **Two matters of mutual interest** were discussed with State Health Commissioner A. E. Heustis, M.D., Lansing.

- **The names of thirty-two nominees** for the Michigan State Board of Registration in Medicine were ordered transmitted to the Governor of the State of Michigan, in accordance with Section 1 of the Medical Practice Act which authorized MSMS to submit recommendations for appointments to said Board. The terms of five members expired September 30.

- **Congratulations were extended** to E. C. Swanson, M.D., Vassar, newly elected Secretary of the Michigan State Board of Registration in Medicine. MSMS stands ready to be of any assistance to Dr. Swanson and his Board.

- **Committee Reports**—the following were given consideration: (a) Finance Committee of The Council, meeting of September 25; (b) County Societies Committee of The Council, September 25; (c) Publication Committee of The Council. September 25; (d) Committee on Accreditation of Hospitals, August 24, (report ordered published as part of the Supplemental Report of The Council); (e) Committee on Courses in Medical Economics and Ethics, August 26; (f) Public Relations Committee, August 28; (g) Committee on Study of Michigan Medical Service Fee Schedules, August 31

(Continued on Page 1284)



SPARES
INTESTINAL FLORA

This sensitivity test shows ERYTHROCIN and the same antibiotics against a typical intestinal strain of *E. coli*. Note that ERYTHROCIN and penicillin do not affect this gram-negative organism —although the other antibiotics show marked inhibitory action.

1. Eisenberg, et al., Antib. & Chemo., 3:1026-1028, Oct., 1953.

with little risk of serious side effects

Since ERYTHROCIN is inactive against gram-negative organisms, it is less likely to alter intestinal flora—with an accompanying low incidence of side effects. Also, your patients seldom get the allergic reactions sometimes seen with penicillin. Or loss of accessory vitamins during ERYTHROCIN therapy. *Filmtab* ERYTHROCIN Stearate (100 and 250 mg.) is supplied in bottles of 25 and 100 at pharmacies everywhere. Abbott

filmtab®

Erythrocin®

(Erythromycin Stearate, Abbott)
STEARATE

® Filmtab—Film sealed tablets; patent applied for.

509183

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 1276)

(paragraph ordered published in the Supplemental Report of The Council); (h) Rheumatic Fever Control Committee, September 14; (i) Program Committee for 1956 Michigan Clinical Institute, September 15; (j) Ubiquitous Hosts for 1955 Annual Session Speakers, September 20; (k) Awards Committee, September 25; and (l) Committee on Mediation, Ethics and Grievance, September 25.

- **Michigan Foremost Family Physician.** Three nominees were selected (J. W. Rigterink, M.D., Grand Rapids, Paul Van Riper, M.D., Champion, and Walter H. Winchester, M.D., Flint) and referred to the MSMS House of Delegates for final balloting.
- **House of Delegates Resolutions.** The Council recommended to the Speaker of the House of Delegates that all resolutions, regardless of content, be referred to a reference committee; this would include resolutions honoring individuals.
- **President's Report:** R. H. Baker, M.D., reported that R. L. Novy, M.D., Detroit, had resigned as President and as a member of the Board of Directors of Michigan Medical Service; the President recommended that MSMS recognize Dr. Novy's long years of service to Michigan medicine with a letter of appreciation and a suitable memento; the President's recommendations were adopted, the letter to be read on Officers Night, September 28, Grand Rapids, during the MSMS Annual Session.
- **President-Elect Jones** appointed I. A. LaCore, M.D., Pontiac, as Chairman of the Mental Health Committee.
- **Council Chairman's Report.** William Bromme, M.D., Detroit, presented several matters including a request from operating room supervisors for co-sponsorship of their Conference held coincident with the Michigan Clinical Institute (March 7-8, 1956); also that the new Liaison Committee with the State Executive Office already had been called upon by Governor G. Mennen Williams for advice in an important matter.
- **Appointments:** B. M. Harris, M.D., Ypsilanti, and R. W. Teed, M.D., Ann Arbor, were appointed MSMS representatives to attend the Michigan Council for UNESCO, October 7-8, Ann Arbor; M. A. Darling, M.D., Detroit, was selected as Moderator for Civil Defense Symposium, Detroit, November 16; R. W. Teed, M.D., was selected as official representative to the Indiana State Medical Association annual meeting, October 17-18-19; J. D. Miller, M.D., Grand Rapids, was elected official delegate and C. Allen Payne, M.D., Grand Rapids. was chosen as alternate delegate, to the AMA Disability Benefits Conference, Chicago, October 22; B. T. Masters, M.D., Fremont, was selected as MSMS representative to attend the National Conference on Health Councils, October 9, Chicago; W. S. Jones, M.D., Menominee, J. D. Miller, M.D., Grand Rapids, W. M. LeFevre, M.D., Muskegon, R. W. Shook, M.D., Kalamazoo, G. W. Slagle, M.D., Battle Creek, C. Allen Payne, M.D., Grand Rapids, L. Fernald Foster, M.D., Bay City, D. Bruce Wiley, M.D., Utica, and William Bromme, M.D., Detroit, were appointed as representatives at October 6 reception for Michigan Health Officers Association, Grand Rapids; Pres. W. S. Jones, M.D., was requested to represent MSMS at dedication of new building of the State Medical Society of Wisconsin.
- **A letter of commendation** to Executive Director William J. Burns on his contribution to the 1955 National Institute, as instructor in "Membership Problems," was received from A. C. Boyd, President of the National Institute, held annually at and under the co-sponsorship of Northwestern University.
- **Legal Counsel's Report.** Mr. J. Joseph Herbert presented opinions re examination of patients' charts by laymen; nurses administering anesthesia (request for this information coming from the Ohio State Medical Association); progress report on Kopprasch Case; Interprofessional Code of Wisconsin (referred to joint meeting of the Executive Committee of The Council with the Executive Committee, Board of Commissioners of the State Bar of Michigan, October 19 in Lansing.)
- **Public Relations Counsel's Report.** H. W. Brenneman stated that the MSMS exhibit, displayed co-operatively with the Michigan Diabetes Association, was a successful feature of the recent Michigan State Fair; he also reported on service club talks and radio and television presentations during the 90th Annual Session, including daily broadcasts from the Pantlind Hotel lobby over radio station WOOD, Grand Rapids; a request of Genesee County Medical Society for use of MSMS exhibit during Flint's "Career Carnival"—which request was granted by The Council.
- **The Supplemental Report of The Council** was read item by item, amended in five sections, and approved for reference to the House of Delegates.
- **Death of Carl M. Peterson, M.D.,** long-time Secretary of AMA Council on Industrial Health, was reported; an appropriate letter of condolence to the survivors and to the AMA was authorized.
- **1956 County Society Secretaries-Public Relations Seminar,** Detroit, January 27-28-29: the program was presented and approved.
- **Official** thanks to all who helped make the

(Continued on Page 1286)

HIGHLIGHTS OF THE COUNCIL

(Continued from Page 1284)

1955 Annual Session an outstanding success (record registration, for Grand Rapids, of 3,585) was placed on the minutes of The Council.

- **Governor G. Mennen Williams** was thanked for his attendance and his presentation on "Traffic Safety," Thursday morning, September 29, MSMS Assembly, Grand Rapids.
- **Condition of the medical profession** in the various Councilor Districts was reported by all Councilors.

REVENUE BUREAU SUMMARIZES MEDICAL EXPENSES UNDER TAX LAW

Deductible and non-deductible medical expenses for income tax purposes have been summarized by the Bureau of Internal Revenue in a series of rulings that combine new interpretations with a clarification of old rulings. Some examples:

Travel expenses to and from a location where daily visits to a medical clinic are required are deductible but (since 1954) cost of food and lodging are not, except as part of a hospital bill.

On education and training, special instruction in speech and lip reading for a deaf child are deductible expenses, but not a course of ordinary instruction. Psychiatric care and therapy at specially equipped treatment schools for alleviating mental illness are deductible items, but where cost of instruction at a psychiatric school doesn't represent medical care, it is not deductible.

On health and accident indemnity insurance, if a policy covers both injury indemnity and medical expense reimbursement, premium cost for latter is deductible but not for former.

On other points, ordinary exercise rubdown, air conditioner, oxygen equipment, iron lung, special bed board, all are deductible items when prescribed by a physician for an illness but not food for ulcer patient, maternity clothing, diaper service, wigs or toothpaste.

WHAT'S WRONG

The Association of American Physicians and Surgeons reports some "shocking results" revealed in a poll of high school seniors on their opinions of the free enterprise system. Eighty-six schools scattered across the nation were surveyed by the Opinion Research Corporation. Here are some of the results:

82% do not believe there is competition in business.
60% said owners get too much of the profits.
76% said owners get most of the gains from new machinery.
55% support the Communist theory "from each according to ability, to each according to needs."
61% reject the private incentive as a need to the survival of our economic system.
60% said a worker should not produce all he can.

—*Polk County* (Iowa) *Medical Society Bulletin,* August-September, 1955

MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physician groups in Michigan, follows:

November 29	AMA Clinical Session	Boston
December 14	MSMS Executive Committee of The Council	Lansing
1956		
January 18-21	Michigan Rural Health Conference	Kalamazoo
January 25-27	Annual Meeting of the MSMS Council, Sheraton-Cadillac Hotel	Detroit
January 27-29	MSMS County Secretaries-Public Relations Seminar, Sheraton-Cadillac Hotel	Detroit
February 16	MSMS Executive Committee of The Council	Detroit
March 6	Michigan Chapter, American College of Surgeons	Detroit
March 7-9	Michigan Clinical Institute, Sheraton-Cadillac Hotel	Detroit
March 9	MSMS Executive Committee of The Council	Detroit
Spring	MSMS Postgraduate Extramural Courses	Statewide
April 11	Genesee County Medical Society's Eleventh Annual Cancer Day	Flint
April 18	MSMS Executive Committee of The Council	Lansing
May 8-9	Annual Clinic Day and Alumni Reunion, Wayne University College of Medicine	Detroit
May 16	MSMS Executive Committee of The Council	Detroit
May 3	Twenty-Eighth Annual May Clinic, Ingham County Medical Society	Lansing
June	Upper Peninsula Medical Society	———
June 11-15	Annual Session, American Medical Association	Chicago
June 4-7	American Cancer Society, Sheraton-Cadillac Hotel	Detroit
June 20	MSMS Executive Committee of The Council	Muskegon
July 19-21	Mid-summer Session of the MSMS Council	Mackinac Island

ANNUAL CLINICAL CONFERENCE

Chicago Medical Society

February 28, 29, March 1 and 2, 1956

Palmer House, Chicago

DAILY HALF-HOUR LECTURES BY OUTSTANDING TEACHERS AND SPEAKERS on subjects of interest to both general practitioner and specialist

PANELS ON TIMELY TOPICS TEACHING DEMONSTRATIONS

SCIENTIFIC EXHIBITS worthy of real study and helpful and time-saving TECHNICAL EXHIBITS.

The CHICAGO MEDICAL SOCIETY ANNUAL CLINICAL CONFERENCE should be a MUST on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

Heart Beats

HEART OF THE HOME CLASSES

Classes in work-simplification techniques designed to fill the doctor's prescription of "Take It Easy" by showing the homemaker with heart disease *how* to "Take It Easy" will continue to be offered throughout the State by the Michigan Heart Association. The Michigan State Medical Society has approved the program and Doctors of Medicine are urged to refer their women cardiac patients to the classes which are financed by the MHA, a Michigan United Fund Agency. *No medical advice, diagnosis, treatment or examination is given in the classes.* This service is adjuvant to private practice and not competitive with it. A complete schedule of the classes which are held in co-operation with Michigan State University extension service and Wayne University is as follows:

Michigan State University

December 6, 8, 13, 15—Ingham County
December 7, 9, 14, 16—Kent County
January 10, 12, 17, 19—Monroe County
January 11, 13, 18, 20—Washtenaw County
February 7, 14, 21, 28—Oakland County
February 8, 15, 22, 29—Eaton County
March 7, 14, 21, 28—Midland County
March 8, 15, 22, 29—Bay County
April 3, 5, 10, 12—Huron County
April 4, 6, 11, 13—Sanilac County
May 1, 3, 8, 10—Newaygo County
May 2, 4, 9, 11—Mecosta County
June 4, 11, 18, 25—Oceana County
June 5, 12, 19, 26—Mason County
June 6, 13, 20, 27—Alpena County

Wayne University

Contact Michigan Heart Association, Doctor's Building, 3919 John R, Detroit 1, Michigan (TEmple 1-8550) for full details.

Role of the P-A Film of the Chest in Cardiology

A new Medical Lecture Kit by William R. Christensen, M.D., Professor of Radiology, University of Utah College of Medicine, is the first of a series of "Cardiac Clinics" to be made available by the Michigan Heart Association on a free-loan basis. These audio-visual kits are designed to enable the Doctor of Medicine to continue his medical education at his convenience in the comfort of his home or office. They consist of a medical discussion recorded on two 12-inch long-playing records (33⅓) correlated with a set of thirty-nine slides (35 mm), a table top viewer for slides with extra light bulb, and a script of the actual discussion. The running time is approximately thirty-five minutes. The only equipment the physician needs to supply is a standard record player for 33⅓ RPM records. Although designed primarily for home or office use, they can be adapted for small meetings by the addition of projection and sound amplification equipment. Contact the Michigan Heart Association, Doctor's Building, 3919 John R, Detroit 1, Michigan, for complete details.

AHA Study Planned to Help Determine Relationship of Work to Heart Attacks

The relationship between work and exercise and heart disease and heart attacks, which has long troubled the medical profession as well as workers and employers, will be the subject of a study to be supported and supervised by the American Heart Association. The project will be directed by Sidney Weinberg, M.D., Assistant Medical Examiner of New York City. Dr. Weinberg has accepted assignment as responsible investigator. He will work with a team of clinical and laboratory scientists.

The project will be under the jurisdiction of a joint Committee on Strain and Trauma. A grant of $13,750 has been approved by the Association's Board of Directors to finance the effort.

Another aspect of the strain and trauma and heart disease question is also to come under study by the Association within the next few months. A project is being organized, which will have as its purpose the critical analysis of legal decisions concerning cardiovascular cases in relation to workmen's compensation.

(Continued on Page 1320)

Pork in the Dietary
During Pregnancy and Lactation

CERTAIN NUTRIENTS are required in greater than normal amounts during pregnancy and lactation. Pork meat, though its cost is low, supplies a remarkably high quantity of the nutrients required by the maternal organism in these periods of physiologic need.

During pregnancy the maternal organism may store 3.3 to 5.5 pounds of protein in excess of that contributed to fetal tissue.[1] Enough iron is stored to approximate the entire amount secreted in the milk during 9 months of lactation, in addition to the iron supplied to the fetus.[2]

The body of the newborn infant contains approximately 500 grams of protein, 14 grams of phosphorus, and 0.5 gram of iron.[3] It is estimated that the lactating mother, through breast milk, provides a 26 week old infant with about 12 grams of protein, 76 grams of lactose, and 1.2 mg. of iron each day.[2]

Pork meat, an excellent source of high quality protein, thiamine, niacin, and iron,[4] also supplies valuable amounts of other B vitamins, as well as phosphorus, magnesium, and potassium. The thiamine content of pork is particularly important, since there are few more valuable food sources of this vitamin.[4]

Pork and pork sausage—economical, good tasting—are valuable components of the dietary of the pregnant or lactating woman. Just how valuable, is shown in the table below.

1. Toverud, K.U.; Stearns, G., and Macy, I.G.: Maternal Nutrition and Child Health, an Interpretative Review, Washington, D.C., National Research Council, Bull. 123, 1950.

2. McLester, J.S., and Darby, W.J.: Nutrition and Diet in Health and Disease, ed. 6, Philadelphia, W.B. Saunders Company, 1952, p. 241.

3. Marrack, J.R.: Food and Planning, London, Victor Gollancz, Ltd., 1943, p. 67.

4. Wolgamot, I.H., and Fincher, L.J.: Pork Facts for Consumer Education, Washington, D.C., United States Department of Agriculture, AIB No. 109, 1954.

5. Watt, B.K., and Merrill, A.L.: Composition of Foods—Raw, Processed, Prepared, Washington, D.C., United States Department of Agriculture, Agricultural Handbook No. 8, 1950.

6. Bowes, A. deP., and Church, C.F.: Food Values of Portions Commonly Used, ed. 7, Philadelphia, Anna dePlanter Bowes, 1951.

Percentages of Recommended Daily Dietary Allowances* for Pregnant (3rd Trimester) and Lactating Women Provided by 3-Ounce Portions of Cooked Pork Meats and Pork Sausage

	Protein	Iron	Phosphorus	Thiamine	Riboflavin	Niacin	Calories
PREGNANCY (3rd trimester)							
Ham, without bone, 3 oz., cooked[5]	25.0%	17.3%	13.5%	30.0%	10.0%	26.7%	12.5%
Pork Chops, without bone, 3 oz., cooked[5]	25.0%	17.3%	13.3%	47.3%	10.0%	28.7%	10.5%
Pork Sausage, 3 oz., cooked[6]	17.3%	14.0%	9.2%	27.7%	10.1%	18.5%	14.7%
LACTATION							
Ham, without bone, 3 oz., cooked[5]	20.0%	17.3%	10.1%	30.0%	8.0%	26.7%	10.2%
Pork Chops, without bone, 3 oz., cooked[5]	20.0%	17.3%	10.0%	47.3%	8.0%	28.7%	8.6%
Pork Sausage, 3 oz., cooked[6]	13.8%	14.0%	6.9%	27.7%	8.1%	18.5%	12.0%

*Recommended Dietary Allowances, Washington, D. C., National Academy of Sciences—National Research Council, Publication 302, 1953

The nutritional statements made in this advertisement have been reviewed and found consistent with current medical opinion by the Council on Foods and Nutrition of the American Medical Association.

American Meat Institute
Main Office, Chicago... Members Throughout the United States

AMA Washington Letter

THE MONTH IN WASHINGTON

Within a few months, there will be under way the first comprehensive survey ever to be made of the nation's mental health problems. The study will attempt to measure the extent of mental illness, to judge the progress and lack of progress in research, and to estimate the additional hospitals and clinics and trained personnel needed before a start can be made toward a solution.

A newly formed Joint Commission on Mental Illness and Health already has begun preliminary work on the survey. The all-out effort will be initiated—possibly before the first of the year—after the Commission has received the formal approval of the National Mental Health Advisory Council of U. S. Public Health Service and the Surgeon General. Once this endorsement has been given, $250,000 in U. S. funds will be available to help with the first year's operations. Another million dollars is to be supplied over the following two years.

Originally, the Joint Commission was formed by the American Medical Association's Council on Mental Health and the American Psychiatric Association. Later other associations joined in, including the American Association of Psychiatric Social Workers, the American Hospital Association, the American Nurses Association, the National League of Nursing, the American Psychological Association and the National Education Association.

A nationwide survey has been the objective of these associations for more than a year. Substance was added to the idea this year when Congress approved the $1,250,000 fund, to be used over three years, for a comprehensive study. The law specifies that the investigation be conducted by nongovernmental bodies; to fully qualify, the Joint Commission has been legally incorporated.

At hearings before Congressional committees early this year psychiatrists and others outlined the complex problem they are facing.

The care of mental patients is one of the great financial burdens of the states; rate of cure and rehabilitation is so low that institutions are being filled as fast as they can be constructed; half the hospital beds are occupied by mental patients and their care costs more than a billion dollars a year in tax funds.

There are not enough psychiatrists trained to administer state programs or for even all the large hospitals; competition for the top men in this field has been compared to the proselyting of football players and coaches.

Many of the leading psychiatrists complain that too much attention is being paid to constructing hospitals and not enough to research, which might develop treatments that would keep many patients out of institutions, and bring about the rehabilitation of hundreds of thousands of others now hospitalized.

In testifying before a House committee early this year, Dr. Leo H. Bartemeier, representing the AMA, argued for federal help in conducting the survey. He told the Committee: "For several years we in the profession of psychiatry have been aware of the critical need for a survey and evaluation of our facilities and programs for the diagnosis, treatment and care of the mentally ill and retarded. While the problems of mental illness appear to grow in almost geometric proportion, we find ourselves without a comprehensive, up-to-date, integrated body of knowledge in spite of the fact that many worthwhile surveys and studies in this field have been made. It is only with such complete knowledge that our present and future direction and programs can be properly planned."

Notes

Before it prepares a report on the narcotic problem, the Senate subcommittee will have held hearings in most parts of the country. Many local addiction problems have been described. At the New York hearing, the subcommittee was urged to recommend a system of clinics, where the addict legally could obtain narcotics at reasonable cost, thereby defeating the rackets.

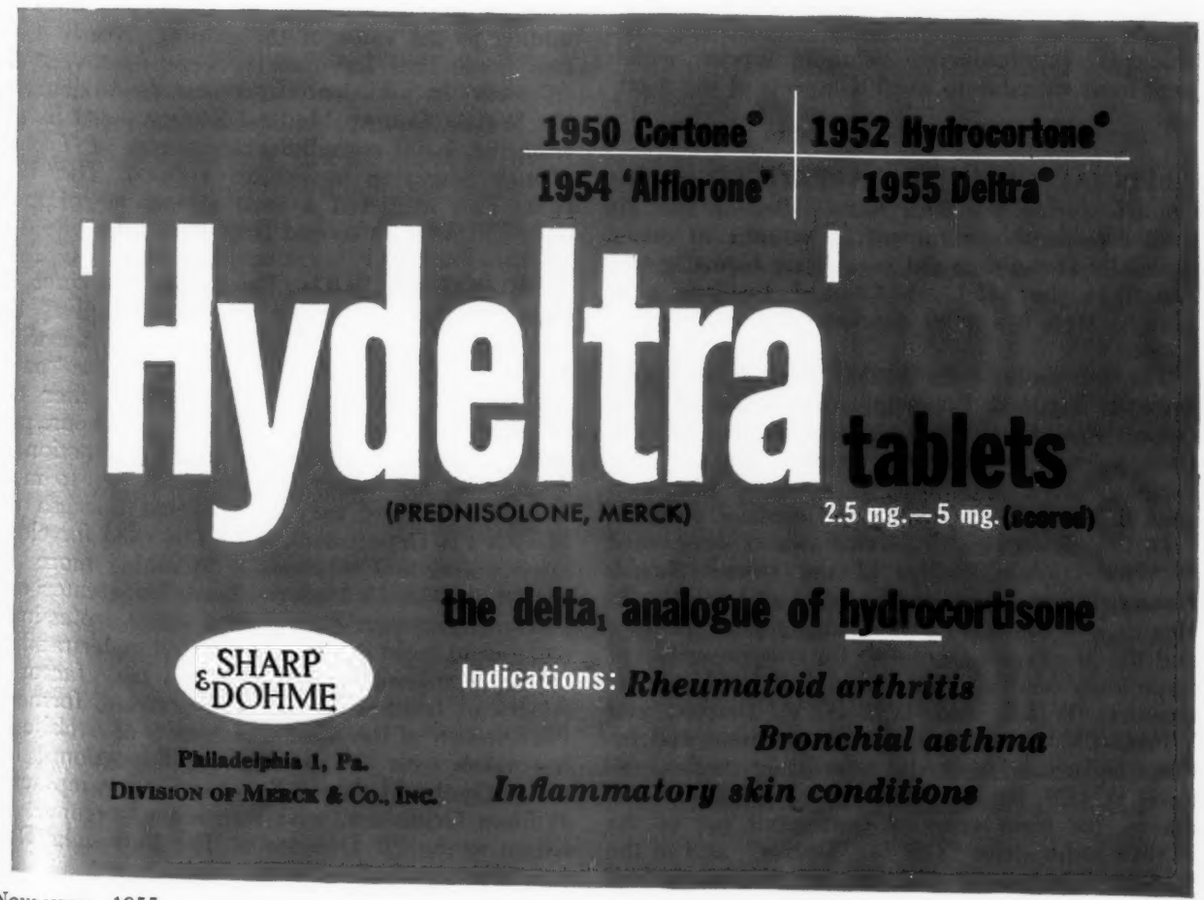
Although states either may take U. S. grants to buy Salk vaccine or the vaccine itself, most of them are taking the money.

Veterans Administration has set up a seventh area medical office in Columbus, Ohio, a move that it believes eventually will provide better service at less cost.

Almost nine million dollars will be spent next year on health work in North, South and Central America by international bodies, such as World Health Organization. One project is the starting in Mexico of a four-year malaria eradication program.

The Navy has set up a program for training Waves as nurses; they will be obligated for a year's active duty for each year of training.

Bureau of Internal Revenue has summarized deductible and non-deductible medical expenses for income tax purposes; the listings combine new interpretations with a clarification of old rulings.



PR REPORT

THE MSMS 90TH ANNUAL SESSION was a tremendous success—the largest ever held in Grand Rapids. A full pictorial roundup is featured elsewhere in this issue, but there are a number of PR sidelights worthy of mention here. For example, traditional pride of the Upper Peninsula in its citizens was the occasion for special regional news service to UP newspapers with pictures and localized releases on the induction of William S. Jones, M.D., of Menominee, as MSMS President. Beyond that, the fact that Dr. Jones is a native of Georgia prompted another special news story to Atlanta dailies.

Flint's pride in the selection of Walter H. Winchester, M.D., as "Michigan's Foremost Family Physician for 1955" brought requests for exclusive photos and news copy. In addition, the MSMS PR staff produced a fifteen-minute on-the-spot interview with Dr. Winchester as he arrived in Grand Rapids for formal introduction to the House of Delegates. This tape recording was hand-delivered to a Flint radio station by a Genesee County Medical Society member, another example of the excellent behind-the-scenes co-operation which goes into the success of a meeting so complex as the MSMS Annual Session. Staff members from Michigan Health Council and Blue Shield also volunteered valuable service which were most valuable to the PR aspects of the meeting.

SPECIAL CITATIONS APPROVED by The Council during the 90th Annual Session will attract considerable comment in months to come, especially at the time the awards are formally presented at the Michigan Clinical Institute next March. Here is a quick rundown of the upcoming honors.

The top award—the MSMS Award for Excellence in Medical Reporting—was voted to *The Detroit Free Press,* with a special citation to Free Press Science Writer Jean Pearson for her continuously high standards in covering Michigan news in the fields of health and medical progress.

Distinguished Health Service awards were voted to: John Wurz, Editor of the *Grand Rapids Herald,* for many years of service and interest in Health and Medicine; the *Lansing State Journal* and the *Muskegon Chronicle* for co-sponsorship of community health forums with their local medical societies; WJBK and WJBK-TV, Detroit, and WPAG-TV, Ann Arbor, for co-operation and interest in broadcasting and telecasting medical affairs; WHFB, Benton Harbor, and WKZO, Kalamazoo, for eight years of continuous use of the MSMS radio series "Tell Me, Doctor" and to the Upjohn Company, Kalamazoo pharmaceutical manufacturer, for its support of the Michigan M.D. Placement Program.

A NEW IDEA FOR "CAREER DAY" was used October 26-28 by the Flint public schools, and the Genesee County Medical Society, with the co-operation of MSMS, took this opportunity to provide information and guidance to scores of students interested in a medical career. Instead of the customary talks before groups of young people seeking facts about a particular field, Flint schools invite professional groups, and representatives of many vocational fields, to set up exhibits in a large central auditorium. Competent counsellors are stationed at each booth, and students are encouraged to pay a visit to those booths which represent the careers in which they are most interested. Pupils are brought to the auditorium on a pre-arranged schedule with a peak load of some 500 per hour.

THE 1955 STATE FAIR EXHIBIT sponsored by MSMS jointly with the Michigan Diabetes Association proved quite a success. Eleven M.D.'s and two dietitians served as resource persons on duty at the booth during the 10 days of the Fair, adding to the value of the exhibit. Nearly 5,000 free home tests for diabetes were selectively distributed. In addition the Woman's Auxiliary to the Wayne County Medical Society aided in distributing 4,100 complimentary copies of *Today's Health* magazine to exhibit visitors. The 1955 State Fair attracted a total attendance of more than 750,000, the second largest in history.

PR POT-POURRI: The AMA has come up with two new television "scripts-with-film" designed so that a local physician may narrate while a film is thrown on the TV screen. These "package shows" make it easy to produce either two fifteen-minute shows, or a single half-hour program, dealing with the eye and the function of eyeglasses. The material is available free to medical societies, and may be obtained through the MSMS PR Department. . . . The need for closer inter-professional relations is becoming more apparent to MSMS leaders. Look for greater emphasis on stronger liaison with other professional societies to build greater respect and understanding for the "professional concept" as a basic factor in American freedom. . . . Neil Bertram, formerly PR Director of the Michigan Society of Architects, has taken over the position as Educational Director for the Michigan Epilepsy Center, replacing William Grimshaw, who resigned to become Assistant to the PR Director of The Burroughs Corporation.

The JOURNAL

of the Michigan State Medical Society

Issued Monthly Under the Direction of The Council

VOLUME 54 NOVEMBER, 1955 NUMBER 11

Tuberculosis

By J. Burns Amberson, M.D.
New York, New York

BECAUSE of the ability of the tubercle bacillus to live indefinitely in the human body even though it may not cause perceptible ill effects, the prevention and control of tuberculosis depends largely on our understanding of the potentialities of the infection and our power to foresee these in the infected person. In this respect the problem is unique; considering the characteristics of the bacillus, the nature of the lesion which it produces and in which it survives, the failure of complete immunity to be established, the shortcomings of therapy and the tendency to chronicity and relapse, it is not duplicated by any other major health problem. It is far different, for instance, from pneumococcal pneumonia or syphilis which yield so completely and rapidly to antibiotic therapy. No way of dealing with tuberculosis in such a simple and decisive way has yet been found. This is not to say that tuberculosis cannot be dealt with but rather to emphasize that success hinges on the scientific intelligence which may be brought to bear on the problem, the confidence and support lent to responsible and competent physicians and health officers by the public (which cannot be expected to understand all the intricacies of the problem), and the maintenance on a stable and efficient basis of facilities and organization designed for humane and unhindered action in helping to meet the needs of patients, their families and their homes and for alertness to danger before it assumes great proportions.

The striking effects of chemotherapy in arresting effectively many cases of tuberculosis which, before the modern era, would soon have been fatal, the prolongation of life in many others even though relapses have occurred or threaten, and the early restoration of the feeling of well being to the patient receiving treatment have changed somewhat the general pattern of the disease in the community and have influenced deeply the attitude not only of patients but also of physicians. The meaning of these changes is clear in some respects but remains to be demonstrated in others. Most important is the obviously greater possibility now of gaining real control over tuberculosis, but it is just as obvious that this requires facing the facts, identifying adverse conditions and taking steps for their remedy.

Most patients arriving in hospitals for the treatment of pulmonary tuberculosis have the disease in an advanced stage. Judged accordingly, the frequency of diagnosis in an early phase when treatment is most effective has not improved as much as might be expected from our knowledge. The fault is not so much in the failure of diagnostic methods but rather in the inherent nature of the disease which at its inception does not often declare itself symptomatically. While chemotherapy and surgery have improved the lot of the patient with advanced tuberculosis and usually prolongs his life, the possibilities of lasting recovery and restoration to normal living are relatively small; often, at best, the disease is converted from an acute to a chronic state in which disability continues, transmission of infection to others may occur, and the frequency of relapse is great.

The frequent diagnosis of early tuberculosis and a maximum percentage of recovery can hardly be expected unless adequate examinations, especially of the lungs, are carried out widely among apparently healthy people and those suffering from

other and unrelated conditions. The expenditures of money and effort for such examinations and for treatment of the early case are a small fraction of the cost of the care of patients with advanced disease although the dividends from the former are infinitely greater. As the incidence of tuberculosis declines, the importance of promptly identifying new cases will grow if we are to avoid endemics and the sporadic transmission of infection between distant countries. For this reason the machinery of detection and control should be maintained and the responsibility of the practicing physician will become greater rather than less.

With the improving results of treatment and the longer survival of patients with the disease in a chronic form, the question arises whether the over-all number of relapses may be more frequent in the future, even though the time of occurrence in the individual patient may be delayed longer than formerly. It remains to be demonstrated, therefore, whether or not modern practice is adding to the reservoir of infection which may overflow from time to time into the general population. We know that the incidence of infection and disease has diminished strikingly among infants and children but that progressive primary disease may also occur in older age groups. The incidence of new cases of tuberculosis in the adult population has not diminished nearly so strikingly or rapidly as the death rate, and, among elderly men, neither the rate of morbidity nor of mortality has diminished very much at all. One of the last strongholds of the infection will probably be among the oldsters, particularly those who are homeless and unattached. Dislodging it will be a major task; meanwhile the significance for public health cannot easily be minimized.

While chemotherapy and surgery have been mainstays of treatment, most experienced clinicians still consider rest treatment to be important and usually essential. Chemotherapy may suppress the growth of bacteria but some of them are known to survive the best of treatment, and the likelihood of their causing later exacerbations of the disease seems to depend largely on the level of the patient's resistance. Rest treatment helps to improve this and its durability is promoted as the patient learns to regulate his habits of living under the intelligent guidance of the physician who understands the problem.

A moot question now is the optimum duration of hospital stay and the wisdom of allowing patients to return home at earlier dates than customary. One thing may be said parenthetically, namely, that the need of accessible and well equipped hospitals staffed by well trained physicians and other personnel is now more important than ever before in view of the many subtle distinctions of treatment and the fine judgment which goes far toward determining the eventual outcome of the case. It is to be expected that in the future hospitals and departments for the care of tuberculous patients will be fewer but better.

While most patients will benefit from an initial period of study and care in a hospital when the disease is active and requires every available means of treatment, the time comes in many cases when treatment may be continued satisfactorily at home. Judging from an organized study being conducted at Bellevue Hospital in New York City, treatment in the home and out-patient department is not always simple. The services ancillary to medical care are numerous and necessary and, in some instances at least, the cost closely approximates that of hospital treatment. It is not the answer to the treatment of the ignorant, recalcitrant and irresponsible patient. In many instances "home care" has seemed to serve adequately because of the continued suppression of the infection by chemotherapy but has been found to fall short of lasting effects because of the patient's poor resistance and the unsuitable environment in which he lives. Patients who could have been "cured" in the practical sense have been converted to chronics and remained disabled, a menace to their fellows and often a charge on the community.

While the pattern of the tuberculosis problem has changed in some respects it still challenges the best knowledge and skill of physicians and demands the continued awareness of the public and the support of governmental agencies if the efforts for control are not to end in a stalemate.

Tuberculosis Case-Finding in Ontario

By S. A. Holling, M.D.

Toronto, Ontario

THE tuberculosis situation has undergone marked changes over the past several years. A dramatic decline of 75 per cent in the death rate of tuberculosis in Ontario over the past ten years to an all time low of 6.1 per 100,000 population in 1954, the appearance of vacant beds in some of the sanatoria, and the recent reduced yield of active tuberculosis in mass x-ray surveys have given rise to widespread misconceptions regarding the seriousness of the problem. This has had unfortunate consequences inasmuch as the general public, including a sizable segment of the medical profession, is tending to develop a feeling of complacency and security regarding the tuberculosis problem.

The decline in the incidence of active tuberculosis is much less than that in the death rate. It is estimated that there has been a decrease of 15 per cent in the incidence over the past ten-year period. In view of this, the challenge at the present time is to develop all available case-finding procedures to the fullest. Fortunately both official and voluntary health agencies primarily concerned with the control of tuberculosis recognize the need for intensified case-finding and there has been maximum co-operation in promoting such an effort.

Adequate facilities for the examination of known cases of tuberculosis, their contacts and persons suspected of having tuberculosis, are basic to a well organized preventive program. They should be free to the public, easily accessible and held with sufficient frequency at regular intervals to meet the needs of the community. We are fortunate in Ontario in having a comprehensive service of this type covering all sections of the province.

There are now some 265 individual clinics conducted in 248 different centers throughout the province. In 181 of these clinics, local tuberculosis associations pay the cost of x-rays and medical supervision, and in twenty-nine, part of the cost. The Provincial Department of Health also provides a completely free traveling service in forty-three centers in addition to medical supervision for twenty-nine of the clinics sponsored by tuberculosis associations. This extensive program has been made possible through the active co-operation of the provincial and federal health authorities; the latter have provided considerable assistance through the Federal Health Grant to permit the expansion of clinic services in the province.

Unsuspected tuberculosis in the apparently healthy general population is the essential core of our problem. How best to find these cases early presents a task of great magnitude as the attack must be made from many angles. A variety of methods is required, of which the mass x-ray survey is a major effort. Its value both from the educational and case-finding standpoint remains undiminished.

The Provincial Department provides a free mass survey service which serves approximately three-fourths of the population in the province covering the territory approximately every four years. In the case of the larger centers more frequent visits are made for the purpose of serving employers in industry. County tuberculosis associations assume the responsibility for organizing surveys on the local level as well as the cost involved. In the area not covered by the provincial government, the National Sanatorium Association, Toronto, conducts free surveys, paying the cost out of Christmas Seal funds.

Tuberculosis in general hospitals has long been recognized as a serious public health problem. With a view to discovering unsuspected cases of tuberculosis among patients admitted to hospital, the Provincial Department of Health, through the use of Federal Health Grants, inaugurated a hospital admission chest x-ray program in 1948. Practically every general hospital in the province in addition to five private hospitals, a total of 167, are co-operating in this program. Funds out of the grant have been used to provide complete miniature film x-ray units in 130 of the larger hospitals, as well as to subsidize the work in small institutions where the volume of work did not warrant the installation of this expensive equipment. The results for the last quarter of 1954 showed that 88 per cent of hospitals reported a coverage of 70 per cent and over of patients who received a routine admission chest film. Fifty-four hospitals

From the Division of Tuberculosis Prevention, Ontario Department of Health.

achieved an enviable coverage record of 90 per cent and over.

The problem of tuberculosis as it affects in-patients also applies to out-patients. The department, therefore, has extended the admission program to include out-patients treated in the larger hospitals having an organized out-patient clinic service.

Recently a special Federal Health Grant project was approved to cover the cost of securing a routine chest film of all elderly persons at the time of admission to the eighty-four homes for the aged throughout the province. Local general hospital x-ray facilities will be utilized for this purpose.

A pre-employment chest x-ray program in industry has been actively promoted throughout the Province. The availability of special hospital miniature film x-ray facilities in all the larger centers has been of great help in securing the full co-operation of management. County tuberculosis associations have accepted the responsibility for organizing the program in their respective districts and have been most successful in their efforts.

Food handlers are an important group who are being x-rayed annually as a condition of employment in several of the larger centers, the largest being the City of Toronto. In some centers, dairy works and employes in hair dressing establishments also are included. It would be most beneficial if there was uniform application of this requirement throughout the province.

Surveys of all school board employes in the province, including teachers, secretarial help, janitors and bus drivers were conducted in 1943-44 and 1951-2. Many local boards of education now require an annual or bi-annual chest x-ray of all their employes. It is expected that the Provincial Department of Education in the near future will establish a policy by means of regulations requiring all school board employes to have a routine chest film at periodic intervals.

A case-finding program of special interest was recently introduced through the medium of the Federal Health Grants which provides for a routine chest film of all applicants for work on the St. Lawrence River Seaway and Power Developments in Ontario, together with their dependents. It is expected that a total of approximately 35,000 persons will be involved in this large construction project. An adequately staffed miniature film x-ray unit has been installed in the office of the National Employment Service, Cornwall, which acts as the central employment agency for the various project contractors.

Another group requiring special attention is that of prisoners in city and county jails. The problem of tuberculosis among such individuals is acute, as might be expected. Through the co-operation of the Provincial Department of Health, the Metropolitan Toronto Council, and the Gage Institute, Toronto, a program was introduced this year in the Don Jail, Toronto, to obtain a routine chest film of all prisoners at the time of commitment. This jail is the largest in the province, having approximately 17,000 commitments yearly—a third of all commitments to jails in Ontario. In the first three months of operation one case of active tuberculosis was reported for every 227 prisoners x-rayed. A proposal to extend this program to a number of the other larger jails in the province is now under consideration.

Tuberculin testing of students and x-raying the reactors is carried out on a wide scale in many localities. In some, the investigation goes still further as the close contacts of the children who react to the test are examined in the hope of finding the source of infection. While this has meant a great deal of extra work on the part of the local health authorities, the results demonstrate that this specialized type of case-finding has a place in a comprehensive diagnostic program.

The private physician, without question, is the single most important factor in the control of tuberculosis, and it is around him that all phases of the preventive program should be built. Private physicians either make or take some part in the diagnosis of over 50 per cent of new cases admitted to Ontario sanatoria.

There can be no doubt but that the office of the private physician offers great potentialities in an expanded tuberculosis case-finding program. If full use is to be made of this opportunity, miniature film x-ray facilities must be available to private physicians for routine chest films of their office patients. The logical course would be to explore the possibilities of utilizing the miniature film x-ray units which have been supplied to 130 general hospitals throughout the province by the Provincial Department of Health out of Federal Health Grant funds. In a number of centers,

(Continued on Page 1314)

Errors of Omission and Commission in Diagnosis and Treatment of Pulmonary Tuberculosis

By Nathan Levitt, M.D.

Detroit, Michigan

IT is a well-known fact that there has been an important change in the diagnosis and treatment of pulmonary tuberculosis in the last ten years. Nevertheless, tuberculosis of the lungs still ranks first among the diseases affecting the youth of our nation.

Many cases of tuberculosis have been discovered by mass chest x-ray surveys, and anti-tuberculosis campaigns. Nevertheless, the practice of routine chest x-ray examination of all hospital admissions has been one of the greatest factors in discovering many unsuspected cases of active pulmonary tuberculosis as well as non-tuberculous diseases of the lungs, such as cancer of the lung, bronchiectasis and heart disease, et cetera.

Although the above measures have proved effective, we still have a long way to go to eradicate tuberculosis from our midst, we must look to the family physician for help in detecting disease in its incipiency. It is to him that the patient turns at the first sign of ill health, whether the complaint be of a minor nature, or of a major illness, thus giving the attending physician an opportunity to detect the presence or absence of tuberculosis in his patient. Let me emphasize here and now that the physical examination of the chest alone is not enough to make a diagnosis of tuberculosis in a patient. It is mandatory that an x-ray of the chest be taken in every case before a diagnosis of pulmonary tuberculosis can be made.

A cough, expectoration, fever, hemoptysis, night sweats and loss of weight, any of these symptoms should alert the physician to the presence of tuberculosis in his patient. However, many cases of active tuberculosis are frequently found in apparently healthy individuals in the course of a routine checkup.

The danger of employing maids and baby sitters indiscriminately to take care of children unless they are known to be tuberculous free should be stressed by the family doctor. There is also the danger of leaving children with grandparents who are suffering from chronic bronchitis, asthma or "cigarette cough." In all the above cases a thorough study should be made to rule out the presence of pulmonary tuberculosis.

Tuberculosis has been called the great mimicker; it may mimic diseases such as hyperthyroidism, bronchiectasis, psychoneurosis, et cetera. To illustrate the value of a routine chest x-ray on admission to a hospital, let me present a case.

In July, 1954, Mrs. L. B., aged thirty-two, was brought to my office complaining of shortness of breath, swelling of the feet and ankles, and pains in the chest for the last three weeks. The patient was too ill to have a complete examination at the office; however, I did find the following:

Examination of the chest showed rales at both bases of the lungs, her heart was enlarged, there was two plus pitting edema of her ankles and feet. She was immediately hospitalized.

Examination at the hospital showed the above, plus the electrocardiogram finding of diffuse myocardial damage. The laboratory work was completely normal. Our impression was that the patient was suffering from congestive heart failure. But the big surprise to me was the x-ray findings of the chest. The following is the report of the x-ray:

There is an extremely large excavation which occupies virtually the entire right upper lobe which is contracted as evidence by elevation of the right horizontal interlobar fissure. The cavity measures approximately 7 cm. in its greatest diameter. There are soft exudative infiltrations in the upper halves of both lung fields at the level of the second and third interspaces. There appears to be a small area of rarefaction representing an excavation in the left upper lobe at the level of the first interspace anteriorly. It contains a small fluid level and measures approximately 2.5 cm. in diameter. The appearance is one of far advanced pulmonary tuberculosis.

Examination of her sputum showed numerous tubercle bacilli. She was sent to Herman Kiefer hospital.

Use and Abuse of Antibiotics

Not infrequently patients may complain of cough and frequent chest colds, pleurisy, et cetera, and without x-raying the chest, the attending physician may prescribe a course of penicillin injections, only to find out later that the patient was suffering from tuberculosis, thus causing not only a delay in the proper diagnosis but a delay in instituting proper treatment. To illustrate:

J. L., aged sixty, consulted me for the following complaints: frequent chest colds, and persistent cough. His history in brief was that he went to a neighborhood physician who gave him a course of penicillin injections for

From the Department of Internal Medicine, Harper Hospital.

the above complaints. While he felt improved for a while, his cough never left him. The physical examination of the chest was essentially negative, but after I x-rayed his chest, I found an advanced infiltrative lesion of both lungs. He was admitted to Herman Kiefer hospital.

The above case is not a rare instance as illustrated by Oatway[4] who reports, "twenty patients in a sanatorium of fifty beds have had appreciable delay in the diagnosis of tuberculous activity because of the use of chemotherapy and the lack of x-rays, bacterial studies, and clear thinking." He further states that "the newer antibiotics give a false sence of security because of their broad field of action. The drugs are efficient and attractive, but they must be aimed more precisely at specific and vulnerable infections."

Cortisone and Pulmonary Tuberculosis

The dangers of using (ACTH) and cortisone not only in patients with active tuberculosis but also in patients who have arrested tuberculosis has been brought to the attention of the medical profession by the National Tuberculosis Association[2] which published the following suggestions:

"Because the action of ACTH and cortisone upon factors of resistance to tuberculosis has been shown to be deleterious in at least three species of experimental animals (mice, guinea pigs, and rabbits), and there is strongly suggestive evidence along the same lines in human beings, it is recommended that these substances not be used in patients with active tuberculosis, and that they be used with extreme caution even in human beings with possibly latent tuberculosis infection, until such time as further investigative work has shown that such administration may be safe. The routine diagnostic examination for tuberculosis of patients under physicians' care is especially necessary for patients who are being considered for ACTH or cortisone therapy."

Many articles have appeared lately in the literature, all warning us of the potential dangers of using cortisone in patients with either active or arrested cases of pulmonary tuberculosis. King et al[3] report a fatal case of pulmonary tuberculosis following cortisone therapy for rheumatoid arthritis. Propp et al[5] report a case of an apparently arrested case of pulmonary tuberculosis that has been activated by administering cortisone for arthritis. Doerner et al[1] report a case of Weber-Christian disease with unsuspected tuberculosis in which cortisone was administered and was followed by tuberculous meningitis and death. In addition to the above cases, I wish to add my case, illustrating the dangers of using cortisone in a patient with arrested tuberculosis.

Report of a Case

M.G., a man, aged fifty-five complained of joint pains involving the ankles, knees and wrists; he was told by his physician that he suffered from rheumatoid arthritis and was given a course of cortisone: 100 mg. daily for twenty-eight days. At the end of this course of treatment he felt very much improved. However, about one month after the cessation of cortisone treatments he began to complain of cough and blood spitting. The patient then consulted me.

Physical examination revealed a fairly well developed man. His blood pressure was 150/70, his pulse was regular 76 per minute, heart examination was negative, examination of the chest showed rales scattered over both lungs. The rest of the physical examination was negative.

Laboratory findings showed C.B.C., Kahn, F.B.S., nonprotein-nitrogen and urine were all within normal limits.

X-ray of the chest showed bilateral infiltration of both upper lobes. Impression: Active tuberculosis.

Upon questioning the patient he told me that he had many x-rays of his chest taken at his place of employment, in fact one a year for the last ten years. I reviewed his last film taken about one year ago, and it showed an arrested lesion in his left apex. There was no question in my mind after reviewing this old film with the present ones that an apparent arrested case of tuberculosis had been activated by the use of cortisone for rheumatoid arthritis.

The above cases teach us many lessons. (1) Before instituting cortisone therapy, the patient should have a thorough physical examination including an x-ray of the chest to rule out active or inactive pulmonary tuberculosis. (2) Cortisone treatment may have a very deleterious effect upon a patient with either active or apparently arrested pulmonary tuberculosis. (3) In the presence of a well-healed arrested tuberculosis, if cortisone is contemplated, frequent x-ray checkup and sputum examination are mandatory because of the ever-present possibility of a flare up as was demonstrated in my patient. (4) Occasions may arise where it is absolutely necessary to treat a patient with cortisone in the presence of active tuberculosis. In these patients we should combine the use of streptomycin and Pas with cortisone.

Recently I saw such a case demonstrated, a young man with active tuberculosis and cavitation who also suffered from rheumatoid arthritis. Since all other measures failed to relieve him of the latter complaint, it was decided to give him a course of cortisone in combination with streptomycin and

(Continued on Page 1325)

Bullous Emphysema

Clinical Pathological Report

By C. J. Stringer, M.D., and
C. A. Burnett, M.D.

Lansing, Michigan

DECREASE of pulmonary efficiency by increasing distention of emphysematous areas and compression of relatively normal lung has always been a serious medical problem, producing severe and sometimes total disability and eventual death.

Efforts to improve the pulmonary efficiency of these patients have in the past been discouraging. However, the increasing frequency with which the problem has presented itself has prompted a more searching examination of the etiology and pathology, and possible application of corrective surgical procedures.

Etiology and Pathology

The loss of support of alveolar walls and intermittent partial bronchial obstruction account for various physiological and pathological pulmonary changes; some of these are self-limited. As an illustration, compensatory emphysema of a normal lobe resulting from atelectasis of another lobe is produced by an increase in the negativity of the intrapleural pressure, and a relative decrease in the support of the alveolar wall. Normal intrapleural pressures are regained by the compensatory emphysema and the process is arrested. Pneumonia in children is known to be followed by the development of bullae which result from necrosis of alveolar and bronchiolar walls and the increase of intrabronchial pressures, due to a mechanical obstruction of mucous plugs and the tendency of relatively flexible bronchial walls to approximate during expiration and especially during coughing, sneezing and straining. The fact that the emphysema spontaneously regresses after infection has subsided is an indication of the ability of the uninvolved parenchyma to obliterate the spaces by virtue of its inherent elasticity.[4] The paradoxical obstructive emphysema of a lobe due to a foreign body, a congenital web or mucosal folds may progress to the point of complete atelectasis of the remaining lobes and can be corrected by the removal of the foreign body or extirpation of the emphysematous lobe.[1]

In contrast to the preceding types, the emphysema resulting from factors which are practically inherent, that is, the degeneration of elastic tissue and bronchiolar spasm, is progressive. At best, conservative measures directed toward diminishing the volume of the thoracic cage and relieving bronchiolar obstruction due to spasm and mucous, can only diminish the rate of progression of this insidious disease. The distention of alveoli leads to the breakdown of the inner alveolar septa, and bullae are produced. With the formation of emphysematous bullae, new factors result and hasten the progression towards respiratory insufficiency. Neighboring alveoli, still capable of function, are compressed by the bullae and rendered atelectatic and subject to infection. The pulmonary structure offers little resistance to the expansion of emphysematous bullae. Any increase in pressure within the cavity over that in the bronchial communications immediately forces the atenuated parenchyma over them, thus frustrating any tendency to empty the bullae of air. Coughing and straining, which are prevalent especially during complicating respiratory infection, result in tremendous increases of intrabronchial pressure with further distention of the bullae. Thus, the vicious cycle of respiratory infection and enlarging bullae is superimposed upon the basic disease process.

Treatment

After consideration of these factors, it is reasonable that the evacuation of bullae with the preservation of parenchyma, functional or potentially capable of function, to allow expansion of the lung to fill the hemithorax with minimal contribution to emphysema, should be the aim of treatment. Resection, advocated in the past, is to be condemned. [2,5] The extirpation of lung units containing bullae not only sacrifices functioning alveolae and those capable of function within that unit, but also contributes to the forces of the basic disease process and results in further over-distention of the remaining alveolae.

The institution of Monaldi drainage in the treatment of emphysematous bullae is said to have been highly successful in other hands.[6] However, there are many objections to this method. Many patients having advanced emphysematous bullous disease also have spontaneous pneumothorax, and obviously cannot be treated by Monaldi drainage.

From Ingham Chest Hospital, Lansing, Michigan.

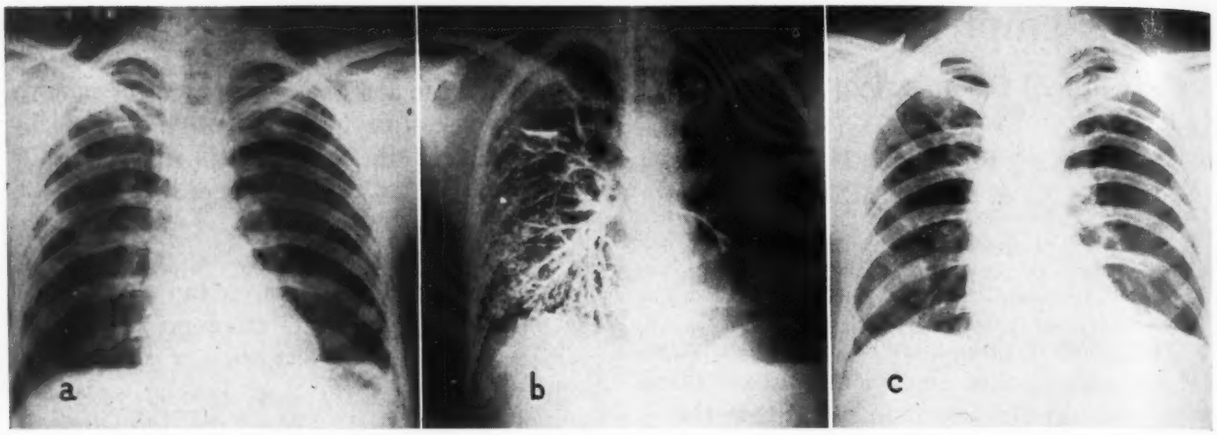


Fig. 1. Case 1. (a) September 6, 1951. (b) September 26, 1951. (c) July 31, 1953.

As a matter of fact, in our experience, the high percentage of failures to expand lungs collapsed by the spontaneous or traumatic rupture of emphysematous bullae by the institution of closed intercostal drainage, have indicated to us the futility of using Monaldi drainage. Other objections are the lack of adaptability to the treatment of multiple bullae, and the necessity of a preliminary procedure to obtain pleural symphysis, the necessity of thoracoscopic examination, with its dangers and limitations, for accurate diagnosis and the determination of suitability for treatment, and the prolonged period of treatment and hospital care.

It would appear that the only justification for the blind percutaneous introduction of instruments into pulmonary cysts and bullae for purposes of examination, aspiration and introduction of cauterizing agents is the fear of thoracotomy. Undoubtedly, thoracotomy in the past presented many dangers which are obviated with persent methods.

Our method of obtaining and maintaining obliteration of bullae consists of excision of the pleural roof and approximation of the parenchyma, which forms the wall, and the pleura, with a continuous suture of fine chromic catgut, each bite including a minimal depth of parenchyma. It is unnecessary to attempt the individual ligation of the many air leaks, unless a relatively large bronchial communication is encountered. These bullae lack a mucous membrane, and healing by first intention occurs.

Differential Diagnosis

This method of management of emphysematous bullae cannot be successfully applied to lesions of congenital cystic disease. Differentiation is therefore important. Congenital cystic bronchiectasis obviously demands the resection of the entire lung units involved. The mucous membrane of isolated congenital cysts is not conducive to healing even with apposition of the walls. The continued ability to form secretions favors recurrence and infection with or without ligation of bronchial communications. In some cases, the cyst is separated from the normal parenchyma by a layer of plera and can be enucleated. The treatment of the more deeply lying congenital cysts is lobectomy,[6] since the dissection of the wall from the underlying parenchyma entails difficult hemostasis and control of air leaks. Furthermore, the necessity for the preservation of parenchyma is not as vital as it is in the treatment of emphysematous bullous disease.

The following cases of congenital cystic disease demonstrate points of differential diagnosis and treatment.

Case 1.—This twenty-six-year-old white man was admitted January 28, 1952, complaining of a cough productive of one-half cup of sputum daily. Physical examination was not remarkable. An x-ray revealed a cyst in the right upper lung field (Fig. 1a). A bronchogram demonstrated entrance of dye into the cyst (Fig. 1b).

Thoracotomy was performed, and the cyst was identified in the right upper lobe lying sub-pleurally. It was considered unnecessary to remove the entire lobe, and too hazardous to dissect the mucous membrane from the underlying parenchyma. Therefore, the roof composed of pleura and cyst wall was excised and the bronchial communications ligated. With inflation of the lung, the mucous membrane of the base was everted. Postoperatively the patient made a good recovery, and repeated films have failed to show any sign of recurrence (Fig. 1c).

Case 2.—A sixty-two-year-old white man, a laborer, was admitted to the Ingham Chest Hospital in October, 1952, because of left chest pain and dyspnea. In 1945 a chest x-ray was taken because of complaint of chest

pain. The x-ray revealed a cyst in the left upper lung field (Fig. 2a). Following its discovery, periodic chest x-rays at this hospital had failed to reveal change. However, approximately ten days before admission he developed a rather severe cold with fever, and an increase in the chest pain and dyspnea.

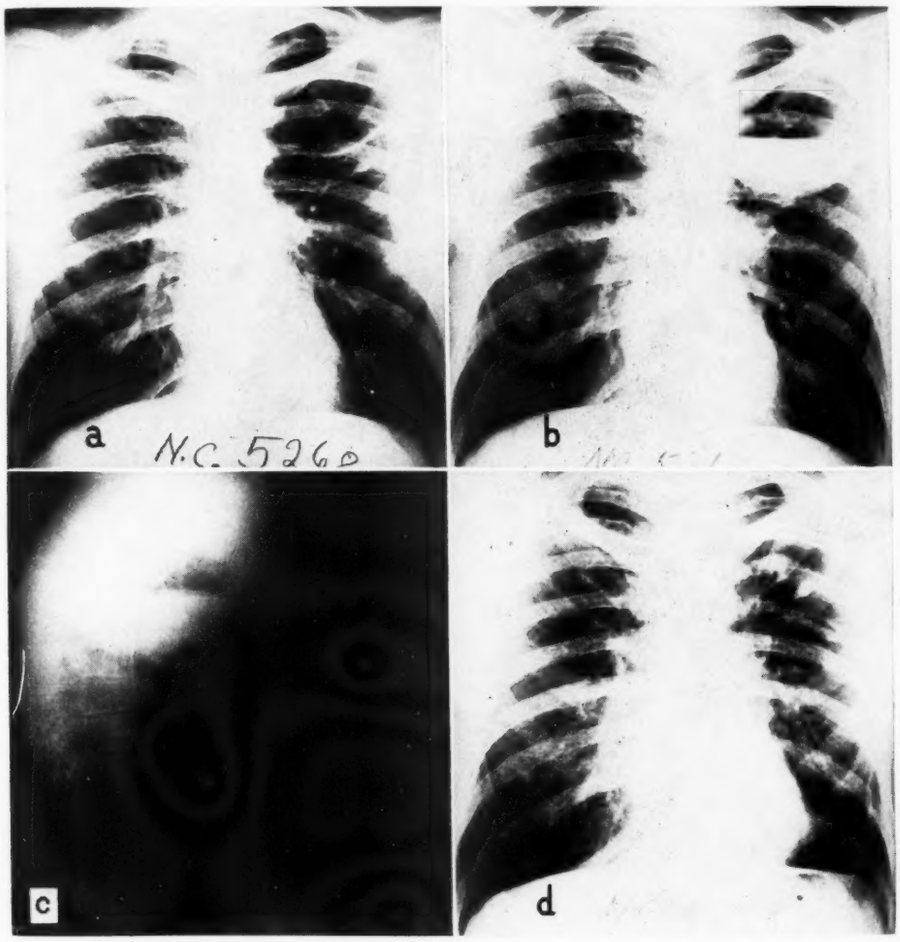


Fig. 2. Case 2. (a) June 26, 1947. (b) October 30, 1952. (c) October 31, 1952. (d) March 1, 1954.

Physical examination was not remarkable except for a temperature elevation to 100°, slight dyspnea at rest, cyanosis and absent breath sounds over the left upper lung field. A standard chest x-ray revealed a single cyst occupying the upper one-third of the left lung with a fluid level (Fig. 2b and 2c).

Penicillin therapy was instituted, and, after the subsidence of the signs of acute infection, a left thoracotomy was performed. The cyst and left upper lobe were delivered by dissection in the extra-pleural plane. A line of cleavage between the cyst and the left upper lobe was found and the cyst enucleated with the ligation of one bronchial communication. He made an uneventful recovery, and returned to work in one month (Fig. 2d).

Comment.—The cyst measured 11 by 9 by 6 cm., had a thick leathery wall, and, upon sectioning, revealed a definite membrane. This case represents a type which is separated from the normal lung by a layer of pleura, and can be removed by enucleation.

The differentiation between emphysematous bullous disease and congenital cystic disease is not only important from the standpoint of the selection of the proper procedure at the time of thoracotomy, but also because consideration of thoracotomy is reserved for those cases of emphysematous bullous disease in which respiratory insufficiency is present or imminent, whereas, the extirpation of congenital cysts is also indicated for the eradication of a source of infection, hemorrhage and malignant degeneration, and in those cases where the exclusion of other pulmonary disease, including malignancy, cannot be certain.

The history of those patients with emphysematous bullous disease is related to the fundamental cause, and is characterized by attacks of bronchitis and asthma occurring over a period of years. In some, symptoms do not precede the onset of respiratory insufficiency or spontaneous pneumothorax. These cases probably represent emphysema with bullae formation, resulting not from

bronchial disease but from degeneration of elastic tissue. The typical changes of emphysema are found on physical examination and chest x-rays, in which the bullae are recognized by the absence of lung markings and definite walls with fine dis-

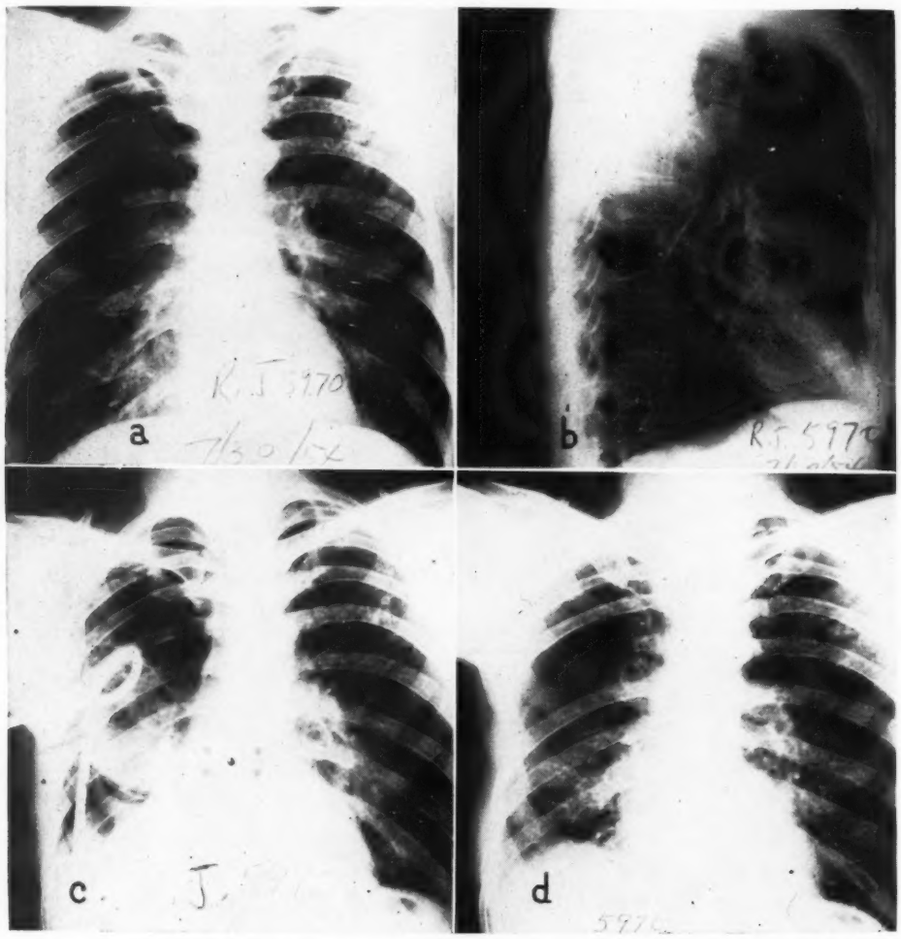


Fig. 3. Case 3. (a and b) July 30, 1954. (c) September 13, 1954. (d) October 16, 1954.

creet filaments traversing the space at angles to the usual lung markings. These bullae are usually bilateral and often present in all lobes. However, fluid formation and infection do not occur in these spaces due to the absence of a secreting mucous membrane and the filtration of air before entrance to the spaces through the bronchiolar communications. Congenital cysts, on the other hand, when air is present within them, usually have a discreet outline with definite walls, and are usually limited to a lobe or at least a definite lung area. These cysts are often discovered on routine chest x-ray, although often they may present with a clinical history and picture of an acute infection, in which case a fluid level is often seen in the cyst.

Spontaneous pneumothorax is a frequent complication of emphysema with bullae and bleb formation.[7] Forty-three per cent of our cases, ultimately requiring thoracotomy, presented with spontaneous pneumothorax. The thin, pleural roof without a mucous membrane lining and the absence of adhesions and collateral circulation are probably the important factors contributing to this complication. There would appear to be no correlation between the degree of physical activity and the onset of pneumothorax. Seventy per cent of our cases of spontaneous pneumothorax occurred at rest in bed, or even during sleep. This would indicate that the air leak occurs at a point of necrosis of the pleural roof.

Pneumothorax is rarely, if ever, a complication of congenital cystic disease. The thickness of the walls which have a definite lining and the frequency with which pleural adhesions are observed in these cases at thoracotomy support the opinion expressed above regarding the etiology of spontaneous pneumothorax.

Bronchography is often helpful in determining the extent of involvement in congenital cystic disease, especially in cases of bronchiectasis. The viscosity of the contrast medium prevents its entrance into the emphysematous bullae through the bronchiolar communications, however, bronchography does serve to indicate the degree of bronchial distortion and the size of the spaces.

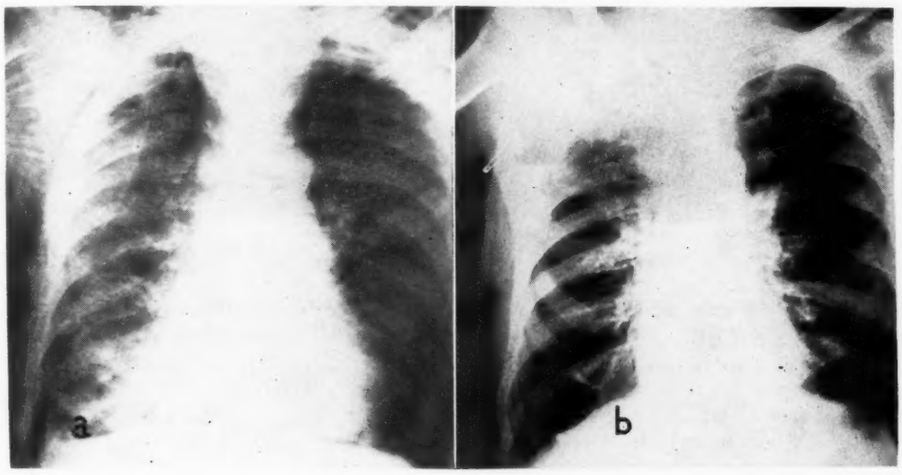


Fig. 4. Case 4. (a) November 16, 1954. (b) January 6, 1955.

The following are representative cases of emphysematous bullous disease. All of these patients were unable to take part in standard pulmonary function tests because of the severity of dyspnea:

Case 3.—This forty-three-year-old married white bus driver was admitted to the Ingham Chest Hospital July 30, 1954, for study of an area of infiltration in the left upper lung field. He had had attacks of asthma beginning in 1945 for which he was discharged from the Army Air Corps. He had also had a cough, productive of two or three tablespoonsful of mucous over the ten years previous to admission.

Physical examination revealed an increased anterior-posterior diameter of the chest, high pitched rhonchi throughout both lung fields and prolongation of the expiratory phase of the breath sounds. Routine x-rays revealed large emphysematous bullae occupying the upper one-third of the right lung, and there were infiltrations at the second and third anterior intercostal spaces on the left (Fig. 3a and 3b).

Approximately five weeks after his admission for observation and study to rule out tuberculosis, he experienced the sudden onset of epigastric and right chest pain which awakened him from sleep, and was followed by shortness of breath. Examination revealed hyperresonance and absent breath sounds on the right side, and fluoroscopy revealed a complete pneumothorax. Under water seal drainage and suction were immediately instituted with relief of dyspnea and pain. Continuous suction was maintained for six days without evidence of sealing of the air leak or expansion of the lung to fill the hemothorax (Fig. 3c).

Thoracotomy was performed with unroofing and obliteration of the emphysematous bullae which occupied most of the upper and middle lobes and the superior segment of the lower lobe. The thoracotomy tube was removed on the fourth postoperative day, and expansion of the lung was maintained (Fig. 3d).

Case 4.—This sixty-five-year-old milkman sustained injuries to the chest when his car was struck by a train. When the patient arrived at the emergency room his condition appeared hopeless. There was tremndous subcutaneous emphysema of the face, neck, chest, abdomen and thighs, with marked cyanosis and labored grunting respirations. Breath sounds were absent over the right chest. Closed intercostal tube drainage and suction were instituted and a tracheotomy performed. Transfusions were given to combat shock, and his condition improved.

Chest x-ray revealed a 20 per cent collapse of the right lung, fractures of the third, fourth, fifth, sixth and seventh right posterior ribs, the film having been taken while suction was maintained. There were no signs of sealing of the air leaks and expansion of the right lung to fill the hemithorax. The aspiration of large amounts of air through the intercostal tube continued unabated (Fig. 4.)

Thoracotomy was elected in view of the strong possibility of a ruptured bronchus. At thoracotomy, an emphysematous lung with a large emphysematous bulla in the right upper lobe was encountered. There was a puncture of its flaccid pleural roof with an active air leak even without application of positive pressure to the tracheotomy tube. In the corresponding portion of the anterior chest wall there was a rib fracture with a protruding spicule of bone. The bulla was unroofed by excising the excess pleura, and the space with a base of attenuated denuded pulmonary parenchyma was obliterated. The patient made an excellent postoperative recovery. The leakage of air through the thoracotomy tube ceased on the second postoperative day, and the thoracotomy tube was removed on the third postoperative day. The tracheotomy tube was removed ten days

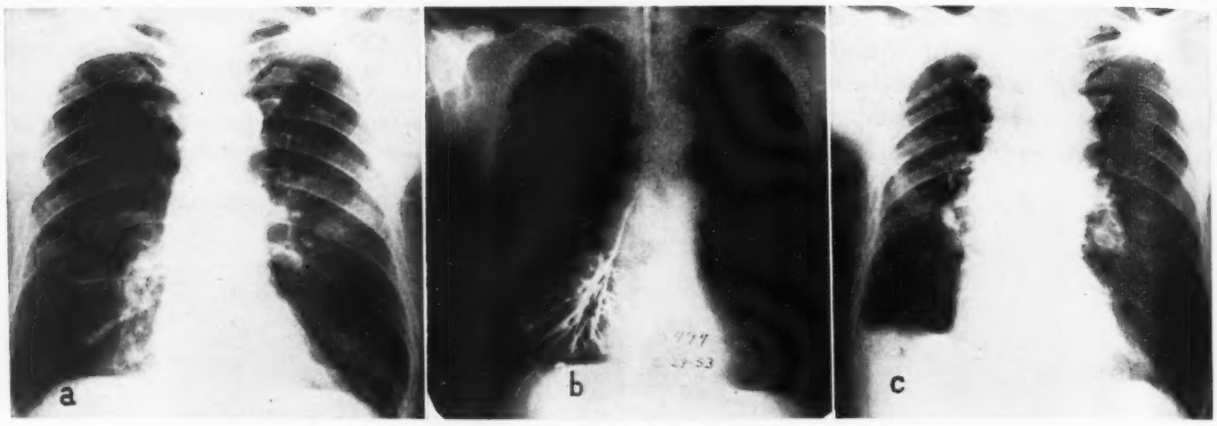


Fig. 5. Case 5. (a) June 20, 1951. (b) May 28, 1953. (c) October 20, 1954.

later, and an achrominoclavicular separation, also sustained in the accident, was repaired under general anesthesia three weeks later (Fig. 4b).

Case 5.—This sixty-year-old white carpenter was admitted to the Ingham Chest Hospital May 31, 1953, because of marked dyspnea which began four years previous to his admission, and had become progressively worse so that he was unable to work. There had been a weight loss of 20 pounds in the two years previous to admission. Standard chest films showed a large air containing bulla occupying the right hemithorax and accounting for 40 per cent collapse of the right lung and emphysema of the left lung (Fig. 5a). Bronchographic studies revealed a marked distortion of the bronchi on the right side, and confirmed the previous estimate of the size of the bulla (Fig. 5b).

Right thoracotomy was performed six days following admission. A large bulla with flaccid pleural roof was encountered in the right upper lobe which along with the middle and lower lobes were markedly compressed by the bulla. The pleural roof was removed revealing a base of denuded parenchyma with multiple air leaks. The space was obliterated with a continuous suture. The postoperative recovery was unremarkable except that the thoracotomy tube had to be maintained in place with suction for a period of sixteen days after operation to obtain expansion of the lung (Fig. 5c). He was discharged one month after operation, with marked improvement of his dyspnea, and was able to return to work one month later.

Case 6.—This forty-six-year-old white unemployed man was admitted to the Ingham Chest Hospital September 18, 1953, because of respiratory invalidism. He had had episodes of asthma during the thirty-eight years previous to admission. Dyspnea had been present for four years before admission, becoming progressively more severe (Fig. 6a). He gave up all employment one year before admission. The patient first refused surgery, and was discharged on October 16, 1953. Finally, when he was unable to walk, he was readmitted on April 30, 1954, and willingly accepted the recommended treatment. Standard chest films revealed an 80 per cent collapse of the right lung and 60 per cent collapse of the left lung (Fig. 6b).

Three days after admission, during which time he was maintained on antibiotic treatment with relief of some of the dyspnea, a right thoracotomy was performed and a large bulla typical of the emphysematous type encountered. This was unroofed, and the space closed with a running suture, and it was possible to expand the collapsed lung and maintain expansion postoperatively. He was discharged from the hospital on the twenty-fifth postoperative day with his condition much improved and able to walk slowly without dyspnea.

Following his discharge, improvement continued, and in January, 1954, he began to work three hours a day driving a truck (Fig. 6c). However, in April, 1954, there was evidence that the bulla in the left lung was increasing in size and herniating into the right hemithorax (Fig. 6d). Therefore, he was admitted on April 30, 1954, and four days later a left thoracotomy with unroofing and obliteration of the bullous space on the left was performed. He made an uneventful recovery, and was discharged fifteen days postoperatively. In October, 1954, he was able to walk six blocks and up two flights of stairs without dyspnea (Fig. 6e).

The pulmonary function test was as follows: walking ventilation 15 L/M; maximum breathing effort 49 L/M; ratio 34 per cent. He was free of asthmatic attacks, and able to work eight hours a day. He weighed 171 pounds, representing a 50 pound weight gain over his admission weight.

Discussion

The results have been gratifying. Pulmonary function tests done from six months to four years after surgery reveal an excellent pulmonary reserve considering the extent of emphysema present. The fact that these men have returned to work, some as laborers, speaks for itself.

There has been no mortality. In one case of spontaneous pneumothorax, due to rupture of an emphysematous bulla, failure to maintain complete expansion after thorocotomy necessitated a thoracoplasty. The clinical result obtained in this case was considered to be good. Two cases (Nos.

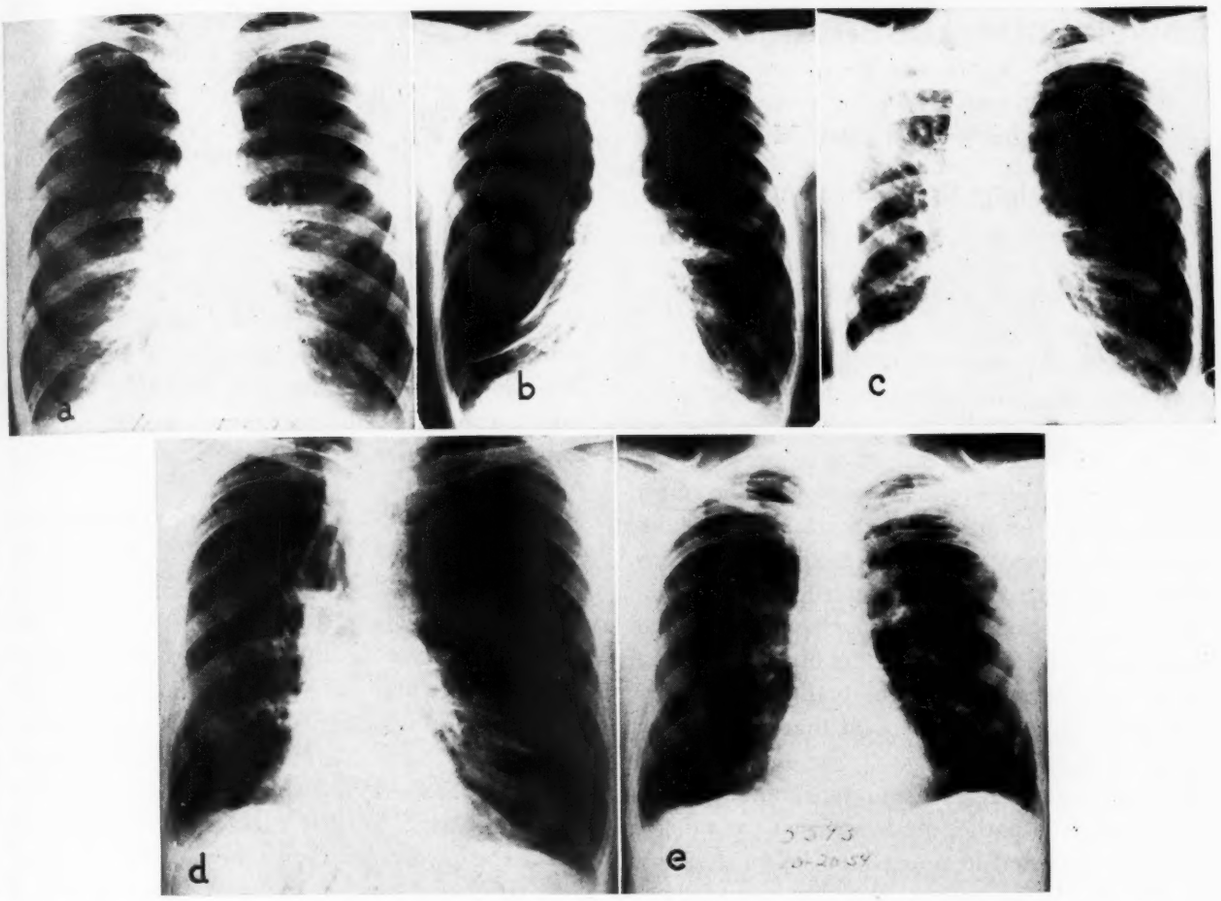


Fig. 6. Case 6, (a) March 22, 1951. (b) September 9, 1953. (c) October 9, 1953. (d) May 1, 1954. (e) October 20, 1954.

3 and 4) required intercostal suction for two weeks postoperatively.

The improvement in the cardio-respiratory reserve at the time of surgery, the absence of mortality, the low morbidity and the clinical results justify the contention that thoracotomy and obliteration of bullae by this method should not be denied these respiratory cripples.

References

1. Burnett, W. E., and Coswell, H. T.: Lobectomy for pulmonary cyst in a 15 day old infant with recovery. Surgery, 23:84-91, 1948.
2. Burnett, W. E.: Cystic emphysema of the lung. Arch. Surgery, 58:328, 1949.
3. Cassels, D. E.; Fritz, J. M., and Adams, W. E.: Congenital cystic disease of the lung. J. Pediat., 35:585-600 (Nov.) 1949.
4. Coffey, J.: Regional obstructive emphysema in infants and children. Am. J. Dis. Children, 60:586, 1940.
5. Cooke, F. H., and Blades, B.: Cystic disease of the lungs. J. Thoracic Surg., 23:546-569, 1952.
6. Head, J. R., and Avery, E. E.: Intra-cavitary suction in the treatment of emphysematous bullae and blebs. J. Thoracic Surg., 18:761-766, 1949.
7. Leah, J. E.: Pneumothorax in young adult males. Arch. Int. Med., 76:264-268, 1945.

DEPENDENT GROUPS INCREASING

Dependent groups will grow faster than the labor force during the next twenty-five years, according to the Census Bureau's projections. The dependent groups are defined as including persons over sixty-five and under fifteen years of age. At the present time, about 8 per cent of the population are sixty-five and over, and about 30 per cent are fourteen and under. A two-thirds gain in the sixty-five-and-over age group is forecast due to improved nutrition and medical care. In computing the potential labor force, the Census Bureau includes everyone between the ages of fourteen and sixty-five. There are now about 102 million in this category. The actual labor force now includes about 66 per cent of the potential labor force.—RESEARCH COUNCIL FOR ECONOMIC SECURITY.

Lower Lobe Tuberculosis

By John William Fries, M.D.

Webster Groves, Missouri

THIS subject is discussed because many times it is not considered in chronic disease of the lower lobes. The medical profession usually thinks of pulmonary tuberculosis as being only upper lung field disease or as a widely disseminated process, and therefore eliminating tuberculosis from any persistent lower lobe infiltration. The historical aspects of lower lobe pulmonary tuberculosis are clearly recorded and discussed by Chambers.[4] Kidd[11] as far past as 1886 noted that the lower lobe apex may be involved. During the nineteenth century and early twentieth century little significance was placed on this observation.

In the 1920's observers found that not all tuberculosis was in the apices of the upper lobes.[5,6] The reports were not in abundance and the commonly accepted pathogenesis was that the tuberculous lesions started in upper lung fields, usually in the infraclavicular regions, and then spread downward. Basal lesions were considered rare.

In 1927 Dunham and Norton[6] presented 60 cases of basilar tuberculosis, of which nineteen were autopsied. Their post-mortem results revealed that in these cases tuberculous lesions were found elsewhere throughout the body. On analysis, twelve had either pleural involvement or adentitis. This finding would be in keeping with a terminal or far advanced phase of tuberculosis, as were the remaining seven cases which had gastrointestinal, genitourinary, and osseous involvement. Pancoast discussed their work and believed that basal tuberculosis was an atypical form of miliary tuberculosis in view of the fact the disease was extrapulmonary in all of the post mortem follow ups.

From 1928[5,9,14,20] the literature becomes more informative on basal tuberculosis with a viewpoint that changes. With the use of the posterior-anterior and lateral roentgenograms we can be more specific as to terminology. Basilar tuberculosis refers to the disease in the lower portions of the lung fields, i. e., below the hilar shadows. The lower lobes comprise the greatest volume of the lower lung fields; however, the middle lobe and lingula are also in the basilar portions. The apex of the lower lobe is above the hilar shadows and therefore would not be included in lesions that were "basilar" in type. There is no anatomical division except an imaginary line dividing the lung fields in half, thus making the term basilar one of poor nomenclature. The older literature is therefore not always too informative in reference to lower lobe tuberculosis since the authors consider indefinite areas of the lung involved rather than lobes and pulmonary segments. Some authors as late as 1946 use the term "basal tuberculosis."[18]

The significance of the established fact that pulmonary tuberculosis may begin in the lower lobes is still many times forgotten. To establish the diagnosis of lower lobe tuberculosis may be difficult since routine sputa examinations may be negative. Sputum concentrates, gastric washings with guinea pig innoculation, and examination of the bronchoscopic material may be needed before the tubercle bacilli can be isolated. Other diseases more commonly affect the lower lobes than tuberculosis, and therefore demonstration of the acid fast organism is needed to establish the diagnosis. Usual conditions considered in persistent lower lobe infiltration are bacterial or viral pneumonias that are slow in resolution, bronchiectasis, lung abscess and bronchogenic carcinoma. The main difficulty is that lower lobe tuberculosis is not considered in a differential diagnosis. Valuable time may be lost by not considering tuberculosis, and in the interim the disease may spread to the upper lobe or the opposite lung field.

Incidence

The reported occurrence of lower lobe infection without disease in the middle or upper lung field varies from below 1 per cent[14] to over 5 per cent.[18] The average falls in the neighborhood of 3 per cent. This means to the radiologist and to the clinician that one out of thirty cases of pulmonary tuberculosis will be in the lower lobes. This point cannot be over stressed. Ross[16] has brought to our attention that nurses may be prone to involvement in the hilar or basilar regions, suggesting the lower lobe to be involved. In his series there were nineteen cases out of sixty. From this work, and others[4,14,15] there is a predilliction

From the Department of Radiology, Veterans Administration Hospital, St. Louis, Missouri.

for women and in an age group from ten to forty years.[4] The involvement of lower lobe tuberculosis is more common on the right, which is a repetitious finding throughout the literature.[1,8,12,18] The concurrence of diabetes mellitus has also been associated with tuberculosis of the lower lobes.[1,17]

Pathogenesis

At present there is not unanimous acceptance of one theory as to the pathogenesis of lower lobe tuberculosis. Of the many proposed mechanisms, one or more may adequately explain each individual case.

Frequently authors[1] mention that rupture of a tracheobronchial lymph node is the most logical explanation of conception of the disease. The contents are discharged into the bronchial tree and descend to a terminal bronchiole where an alveolar infection, bronchopneumonic in type, can follow. In this type we find reinfection or adult type of tuberculosis. A tuberculous lymph node may rupture into any adjacent structure.[2] Since the apex of the lower lobe is in close proximity to the hilus, this seems to be a logical method of instituting a parenchymal infection. Halle and Blitz[8] point out that the caseous lymph node of the primary complex may erode into lung structure with subsequent healing, and later reactivate. When calcific hilar lymph nodes rupture or erode, tuberculosis is not the only sequellae. Expectoration of calcific deposits, lung abscess, hemorrhage, and bronchopleural fistula have been reported by Head and Moen.[10] Although calcific hilar nodes can contain active tubercle bacilli, they are evidently less prone to cause pulmonary tuberculosis, when and if they erode nearby pulmonary structures, than is a caseous node having an abundance of acid fast organisms.

Ossen[12] explains a method of pathogenesis of lower lobe tuberculosis in patients that have evidence of apparently inactive tuberculosis in the upper lobes manifested by nodular or fibrotic infiltration. He believes these foci at times will set acid fast organisms free, and they in turn will drain into the lower lobe bronchi to establish a new infection in the vulnerable apex of the lower lobe. This he designates as metastatic lower lobe disease.

Large tuberculous lymph nodes at the lung roots may transmit their disease to the apex of the lower lobes by means of retrograde lymphatic flow.[8]

Another important consideration in the evolution of the lower lobe tuberculosis is the degree of aeration of various portions of the lung. The posterior paravertebral volume of lung structure has less motion than the remaining portion of the lung. Within this region we find the posterior subapical area of the upper lobe and the apical segment of the lower lobe. This posterior gutter of lung is more stationary in women because their breathing is mainly costal in action. In contrast, the male main breathing mechanism is diaphragmatic. In addition, the right hemidiaphragm with the underlying liver has less excursion than the left. This results in the right paravertebral area being the most fertile ground for beginning infection. The vulnerability of this area is manifest in theory and in practice by the right lower lobe, especially the apex, being the most common area of involvement, with the incidence predominantly in females. By this method, the tubercle bacilli may gain entrance to the pulmonary structures by means of inhalation.

No specific pathogenesis has been proposed whereby other portions of the lower lobes, except the apex, may be the initial site of involvement. The literature is only informative as to why the apical segment is most commonly the site of onset.

Roentgen Findings

The roentgen examination requires posterior-anterior and left or right lateral views. Examination in both planes can clearly localize areas of infiltration limited to the lower lobes. Single posterior-anterior examinations cannot rule out middle lobe or lingular disease, since they overshadow the lower lobes. The inferior portion of the upper lobes are also obscured by the lower lobe apices on the posterior-anterior film. The cardiac silhouette can also obscure lesions in the left base that a lateral view will demonstrate. The costophrenic sinus posteriorly cannot be seen on the conventional posterior-anterior views, and demonstration of this area is of value in view of the fact that lower lobe tuberculosis has been known to simulate subphrenic abscess. In this type of unusual process the lung fields may be initially clear,[7] and an extensive pleural reaction with an elevated diaphragm may be the only findings.

Ostrum and Serber[13] best discussed the early roentgen aspects of lower lobe tuberculosis and divided tuberculous lesions into two groups. The

first type shows small areas of infiltration, just perceptible, above and below the hilar regions appearing as transverse or beaded lines. These infiltrates are often lateral to the hilar shadows.

The presence of large pleural effusion, emphysema, and atelectasis is seldom found in the literature in relationship to lower lobe tuberculosis. These findings would lead one to think the underlying diseased process is a pathological entity other than tuberculosis.

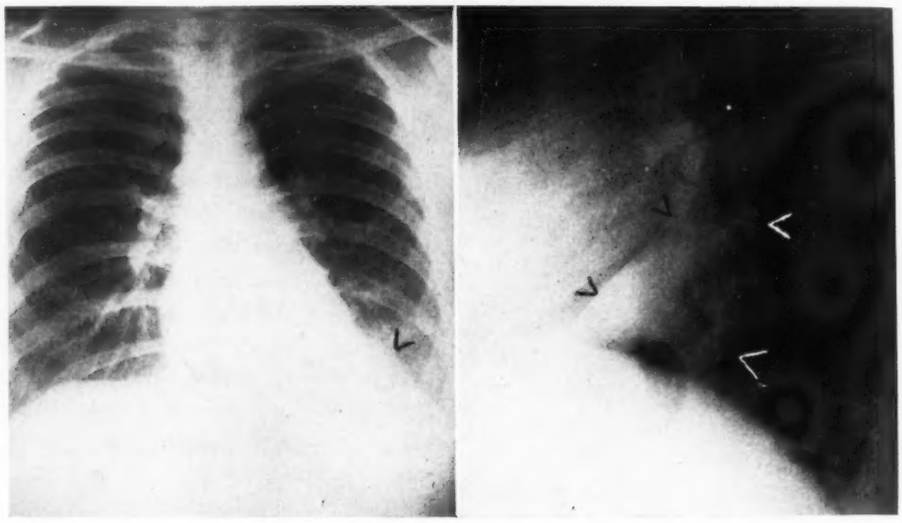


Fig. 1. (a) Posterior-anterior view of a thirty-two-year-old white woman, a nurse. The arrow is adjacent to a small ill-defined infiltrate to the left of the cardiac silhouette.

(b) Left lateral view of (a). The arrows localize the infiltration which is retrocardiac and limited to the antero-medical basal segment. The apical segment of the left lower lobe was not involved. This case was proven to be pulmonary tuberculosis and limited to the antero-medial basal segment.

In the lateral view visualization of these infiltrates are sometimes difficult to see since the apex of the lower lobe overshadows the thoracic spine. The second type consists of larger areas of infiltration which appear as areas of consolidation. Cavity formation is often seen, and more of the lower lobe than just the apex may be involved. This is a farther advanced process than the first type. Sokoloff[17] has demonstrated that cavitation which occurs may show little inflammatory change in the surrounding lung, and this is important in the differentiation from a lung abscess. The cavities may be multiple, irregular in shape, and they frequently have no fluid level. Cavitation has been known to occur with a high frequency. Andosca and Foley[1] found 78 per cent of their patients to have cavities upon admission.

The infiltration may extend from the hilus toward the diaphragmatic surface, and this suggests bronchiectasis. It will persist on several roentgen examinations with little if any change. In this type the x-ray examination may be misleading since the clinical findings may also be compatible with bronchiectasis. Only through demonstration of tubercle bacilli can the diagnosis be established.

At this point mention should be made of pulmonary tuberculoma. This form of tuberculosis is in many ways different from the infiltrative or alveolar type which is being presently discussed. Tuberculomas are circumscribed and appear as a rule as nodules in the lung field. Although they are more common in the upper lobe, seven out of twenty-six cases in Wang's series[19] occurred in the lower lobes with the superior and subsuperior areas being affected. It is also interesting to note that six of the seven cases were on the right side. Firm encapsulation tuberculomas is not always the rule. Tubercle bacilli can be demonstrated in the bronchial washings and tuberculomas can undergo cavitation. Further spread of the disease may follow, and for this reason attention should be paid to these lesions. The roentgen features consist of dense rounded lesions, usually sharply defined. They vary from 1 cm. to over 7 cm. in size and the calcium may be irregularly distributed throughout the center or periphery of the lesion. The greater majority are near a pleural surface and in many cases there

is x-ray evidence of healed or inactive tuberculosis elsewhere in the chest. The form of the disease presenting cavities may give a roentgen appearance of a "doughnut" shadow.

later the sputum smear was positive for tubercle bacilli. The patient had a left lower lobectomy and has been asymptomatic for over two years. This patient demonstrates the necessity of having a lateral view since the greater portion of the infiltration was obscured by the

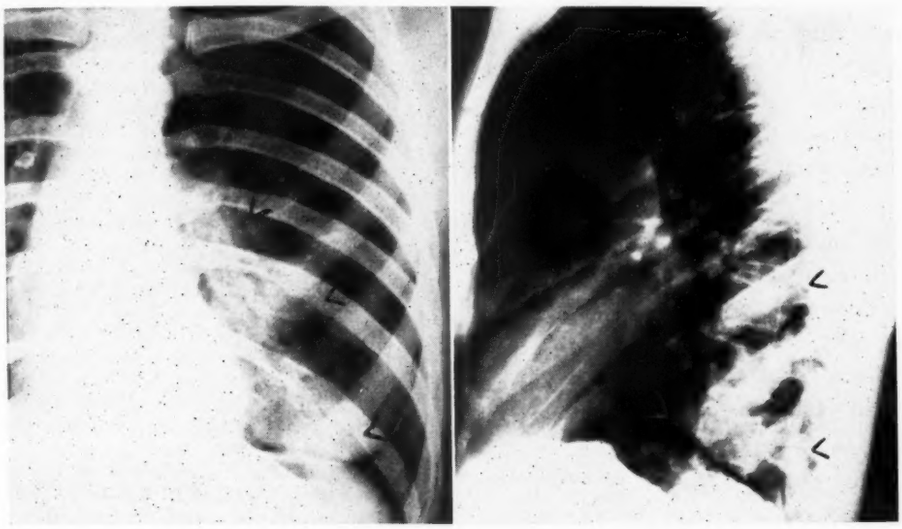


Fig. 2 (a). Posterior-anterior view of a twenty-one-year-old colored woman. An infiltrative process is noted in the left lower lung field (arrows).

(b) Left lateral view of (a). The infiltration is located posteriorly (arrows) in the lateral and posterior basilar segments of the left lower lobe. The apical segment was not involved. This case was proven to be pulmonary tuberculosis and responded to left lower lobectomy.

In reference to involvement of specific lower lobe segments other than the apical segment, the literature again presents a paucity of reports. The two cases to be presented show quite clearly involvement of lower segments, with the lower lobe apex being clear. Although these cases do not present x-ray findings that are characteristic of lower lobe tuberculosis, they do add to the armamentarium of the protean manifestations of this disease. Therefore, with persistent segmental infiltration of the lower lobes other than the superior segment, tuberculosis must be considered as being an etiological factor.

Figure 1a is a posterior-anterior view of a thirty-two-year-old white woman, a nurse. A small ill-defined infiltrate was observed just to the left of the cardiac silhouette. This could very easily have been overlooked. Figure 1b is a left lateral view and the infiltration is clearly defined in the anterior inferior portion of the left lower lobe in the antero-medial basal segment. A diagnosis of atypical pneumonia without resolution was made since the infiltrate persisted for several months. There was no response to penicillin and later to aureomycin. An afternoon fever and weight loss continued. Numerous sputa smears were negative; however, months

cardiac silhouette. This apical segment was free of involvement, and the only site of involvement was in the antero-medial basal segment.

Figures 2a and 2b are posterior-anterior and left lateral views respectively of a twenty-one-year-old colored woman who had lower lobe tuberculosis. She was poorly controlled by pneumothorax but responded well to left lower lobectomy. The patient had a very small amount of sputum that was repeatedly negative, thus delaying the diagnosis. This case demonstrates the primary involvement to be in the posterior and lateral basilar segments of the left lower lobe, and the apical segment showed no evidence of the disease.

Conclusion

Lower lobe tuberculosis is to many an unknown disease, and as a result a diagnosis is made after the disease has been present a considerable length of time. Since the apices and infraclavicular regions are radiographically clear, the initial suspicion of tuberculosis from the clinical symptoms is forgotten. Female patients usually have small amounts of sputa, and two or three direct smears may fail to reveal the tubercle bacilli. Repeated examinations, especially gastric washings with

guinea pig innoculation, may be necessary to establish the diagnosis.

There is a predilection for the apical segment of the lower lobe. Diminished aeration of this volume of lung structure may be the reason for the higher incidence than in other portions of the lower lobes. Rupture of a tracheobronchial lymph node, old healed foci in the upper lobes, large hilar adenopathy with retrograde lymphatic flow, and inhalation are the mechanisms by which the tubercle bacilli reach the lower lobe.

The roentgen examination reveals a persistent infiltration in the lower lobes with the apical portion usually being involved. Thin walled cavities are the rule. Tuberculomas may occur in the lower lobes and may be a source of further pulmonary tuberculosis, since they may cavitate and discharge the acid fast organisms.

Whenever a pneumonitis or infiltration is persistent in a young person, and it involves the lower lobes, and does not resolve or respond to antibiotics used in the therapy of acute pneumonias, a definite search must be made to rule out tuberculosis or to isolate the acid fast organisms.

The two cases presented show that lower lobe tuberculosis may have as its initial site of onset lower lobe segments other than the apical segment. This finding has not previously been stressed in the literature.

Acknowledgment

The author wishes to express his appreciation to Dr. B. Friedman for the demonstration of Figures 1a and 1b.

References

1. Andosca, J. B., and Foley, J. A.: Basal tuberculosis. Thoracic Surg., 12:259-266, 1943.
2. Auerbach, O.: Perforation of tuberculous lymph nodes into the trachea and bronchi. Arch. Otolaryngol., 39:527-532, 1944.
3. Busby, J. K.: Basal tuberculosis. Am. Rev. Tuberc., 40:692-703, 1939.
4. Chambers, J. S., Jr.: Tuberculosis cavities of the lower lobes. Am. Rev. Tuberc., 63:625-643 (June) 1951.
5. Colton, W. A.: Basal lesions in pulmonary tuberculosis, with report of seven cases. U. S. Vet. Bur. Med. Bull., 4:503-511, 1928.
6. Dunham, K., and Norton, V. V.: Basal tuberculosis. J.A.M.A., 89:1573-1575 (Nov.) 1927.
7. Gross, R. J., and Schaefer, F. H.: Basal tuberculosis simulating subphrenic abscess. Dis. Chest, 16:193-196, 1949.
8. Halle, S., and Blitz, O.: Lower lobe tuberculosis. New Orleans M. & S. J., 103:479-486, 1951.
9. Hamilton, C. E., and Fredd, H.: Lower lobe tuberculosis: a review. J.A.M.A., 105:427-430, 1935.
10. Head, J. R., and Moen, C. W.: Late nontuberculosis complications of calcified hilus lymph nodes. Am. Rev. Tuberc., 60:1-14, 1949.
11. Kidd, P.: On basic tuberculous phthisis. Lancet, 2:615-617, 1886.
12. Ossen, E. Z.: Tuberculosis of the lower lobe. New England J. Med., 230:693-698, 1944.
13. Ostrum, H. W., and Serber, W.: Early roentgen recognition of lower lobe tuberculosis. Radiology, 53:42-48, 1949.
14. Reisener, D.: Pulmonary tuberculosis of the lower lobe. Arch. Int. Med., 56:258-280, 1935.
15. Romendick, S. S.; Freidman, B., and Schwartz, H. F.: Lower lung field tuberculosis. Dis. Chest, 10:486-488, 1944.
16. Ross, E. C.: Tuberculosis in nurses. A study of the disease in 60 nurses admitted to the Manitoba Sanitorium. Canad. M. A. J., 22:347-354, 1930.
17. Sokoloff, M. J.: Lower lobe tuberculosis. Radiology, 34:589-594, 1940.
18. Vizwanathan, R.: Tuberculosis of the lower lobe. Brit. Med. J., 2:1300-1302, 1936.
19. Wang, C. C.: Roentgen features of pulmonary tuberculosis. Radiology, 60:536-543, 1953.
20. Weidman, W. H., and Campbell, H. B.: Lower lobe tuberculosis. Am. Rev. Tuberc., 36:525-541, 1937.

TUBERCULOSIS CASE-FINDING IN ONTARIO

(Continued from Page 1300)

general hospitals already have introduced such a program with the active co-operation of local physicians.

Until such time as some means is discovered in preventing tuberculosis which is as effective as the vaccine for small pox, our main weapon in the fight against tuberculosis, as far as case-finding is concerned, remains the x-ray. Over one million people in Ontario were examined last year in connection with the preventive program. The goal to which we must strive is the acceptance by the public of the need for an annual chest x-ray and the provision of adequate facilities for this purpose. We should realize, however, that it is the thoroughness by which our programs are conducted, not necessarily the volume, which will best reward our efforts in the future.

Management of Tuberculosis in Children

By Edna M. Jones, M.D., and
W. Leonard Howard, M.D.

Northville, Michigan

SINCE December, 1921, Maybury Sanatorium has maintained 90 to 160 beds for tuberculous children and in these thirty-three years has treated approximately 3,000 children from the Detroit area. The effect of antimicrobial therapy (AMT) on the death rate of children at Maybury Sanatorium has been striking. Even from the beginning of our experience with streptomycin there has been ample evidence that it favorably influenced the course of tuberculosis in children. During the six-year period from January, 1941, to January, 1947, there were 780 patients at the Children's Unit with seventy-seven deaths—a rate of 9.8 per cent. During the period from April, 1947, when streptomycin first became available, to April, 1955, there were 791 patients at the unit with thirteen deaths—a rate of 1.6 per cent. The effect of streptomycin (SM) and para-aminosalicylic acid (PAS) was seen not only in the reduction of deaths but also in a reduction in the number of primary lesions progressing to fatal forms. Prior to 1952 meningitis occasionally developed in a patient with miliary disease even after he had been placed on adequate streptomycin; since 1952 in patients treated with isonicotinic acid hydrozide (INH) this has never occurred. A true measure of the effectiveness of present-day, long-term chemotherapy is indicated in Table I, which compares the experience in the period immediately preceding the advent of any antimicrobials with that following the introduction of INH.

Another important advantage in these past three or four years has been long term, continuous, combined, antimicrobial therapy. Hence it is apparent this period presents a marked change of attitude toward the treatment of tuberculous children.

Among Maybury children 10 per cent developed tuberculosis before they reached six months, 20 per cent before one year, 40 per cent before three years, and 75 per cent before five years of age.

From the Wms. H. Maybury Sanatorium, Northville, Michigan.

TABLE I. MORTALITY

	All Patients			Meningitis Cases		
	No.	Deaths	%	No.	Deaths	%
Without AMT 1944-46	200	30	15	10	10	100
With FULL AMT 1952-55	392	1	0.25	32	1	3.1

TABLE II. IN-SANATORIUM CHILDREN (APRIL 18, 1952 TO MARCH 18, 1955)

Total No. (Including Patients c Multiple Lesions)		Cases Classified According to Major Lesion		Deaths	
		No.	%	No.	%
Group I					
Meningitis	32	32	8.2	1	3.1
Miliary	43	27	6.9	0	0
Pericarditis	1	1	0.2	0	0
Group II					
Reinfection (pulm.)	10	10	2.5	0	0
Bone and Joint	29	21	5.4	0	0
Genitourinary	2	1	0.2	0	0
Peritonitis	4	4	1.0	0	0
Pleuritis	36	18	4.6	0	0
Primary (PBC)*	128	106	27.1	0	0
Group III					
Primary (simple)	192	156	39.8	0	0
Nodes (superficial)	26	16	4.1	0	0
EENT	6	0	0	0	0
Total		392	100.0	1	0.25

NON-SANATORIUM CHILDREN

Group IV
Recent tuberculin converters.
Heavily exposed babies and sick children.

*See description in paper.

Approximately two-thirds of Maybury children are colored. Children with all types of tuberculosis are admitted, and many have more than one organ system involved. Table II reveals pertinent data on 392 in-sanatorium patients who had the advantages of the modern use of anti-tuberculosis drugs.

Table II and also the Table III showing dosage regimens are arranged according to the relative time the various groups would be likely to need bed rest and hospital observation rather than as to the total length of drug therapy.

Aside from the three in-sanatorium groups which have been treated at Maybury, a fourth non-sanatorium group might advisably be treated.

Antituberculosis drugs are given in combination and continuously beyond apparent stabilization of the lesions. They are prescribed individually for each child on the basis of mg. per pound per day (INH, SM and PAS are dispensed in metric system units; the children are weighed in pounds). *High, Medium* and *Basic* dosage levels are used for SM and INH but only the *Basic* dosage level for PAS.

TABLE III. PRESENT AMT OF CHILDREN AT MAYBURY

Regimen	I (INH)	S(SM)	P(PAS)
HIGH	**I 4.5-3.5 mg./lb./day**	**S 25 mg./lb./day**	**P 90-45 mg./lb./day**
MEDIUM	I 3-2.5 mg./lb./day	S 9-6.5 mg./lb./day	P 90-45 mg./lb./day
BASIC	*I 2-1.5 mg./lb./day*	*S 9-6.5 mg./lb./3xwk.*	*P 90-45 mg./lb./day*
Class	Duration of High	Duration of Medium	Duration of Basic
Group I Men (early) Miliary Pericard.	**I 10 da—S2w-P** **I 10 da—S2w-P** DRASTIC REGIMEN	I 4-6m—S6-9m plus P I 3-6N—S2-4m plus P	*I-P 24-36m total* *& S 9-15m total* *I-P 18-24m total* *& S 3- 6m total*
	USUAL REGIMEN		
Group II Reinfection		P & I 10 days or S 2 wk.	*P 18-24m total* *& I 18-24m total* *or S 18-24m total*
Bone and G.U.		I 10 days & S 2 wk. or P	*I 24-36m total* *& S 24-36m total* *or P 24-36m total*
Peritonitis		Same	*Same 12-24m total*
Pleurisy		Same	*Same 9-18m total*
Primary Group III Lymph nodes (superficial)		Same	*Same 9-18m total* *Same 12-24m total*

In a given disease classification the highest dosage is given first when the disease is most active. The growth and weight gain of the child usually take care of the reduction of dosage but if not the dosages are adjusted. Even in the same classification there are degrees of extensiveness of the disease and also of symptoms. For instance, a severely ill child with extensive primary disease would be started on the upper limit of the *Medium* dosage of 3 mg. of INH with either 9 mg. of SM or 90 mg. of PAS per pound per day. On the other hand an asymptomatic child with a smaller primary lesion would be started with 2.5 mg. of INH and either 6.5 mg. of SM or 45 mg. of PAS per pound per day. INH-SM seems somewhat superior as a two-drug combination but INH-PAS is less burdensome to the child. As of July 15, 1955, the 100 children in Maybury were receiving AMT as shown below:

Drug Combination	*No. of Patients*
INH-PAS	81
INH-SM-PAS	14
INH-SM	1
INH alone	2
SM-PAS	1
None	1
	100

Group I

In Group I are cases of meningitis, miliary disease and pericarditis where the *drastic* regimen of antituberculosis therapy is used to obtain the maximum effect before irreparable damage occurs.[17] In pericarditis and miliary tuberculosis there is a routine reduction of INH in ten days and SM in two weeks. Likewise in an early and favorably responding meningitis it may be feasible to reduce the INH in ten days to lessen the risk of toxic hepatitis and neuritis and to reduce SM at two weeks to prevent the vestibular damage (as detected by the caloric test) which almost invariably occurs when *High* dosage is continued for more than three weeks. However, in more severe and less responsive cases of meningitis the benefit of longer high dosage INH-SM outweighs the risk of toxicity. Intrathecal SM is no longer used but frequent spinal taps are necessary to relieve pressure symptoms until the meningitis starts to subside. Older children, although not complaining of headache, often remark that they feel better after the spinal tap and they are obviously less irritable. If the patient becomes comatose, massage and passive motion of all joints will help to minimize muscle contractures and ankylosis.[16] Spinal punctures are done routinely on newly admitted patients with miliary tuberculosis and then repeated once or twice within the month and occasionally during therapy. Increasing experience with INH in combination with other drugs has reduced the number of spinal fluid examinations needed. Children in this group require maintenance of high-protein, high-calorie, high-vitamin diet and electrolyte balance when vomiting is excessive and they must receive INH parenterally if there is vomiting from any cause whether it be due to increased intracranial pressure, emetic cough, gastric upset due to PAS, food allergy, et cetera. The importance of INH in meningitis and miliary tuberculosis is stressed by authoritative reports.[2,11,12]

Group II

In Group II are reinfection, bone and joint, genitourinary, peritoneal, pleural, and the more severe primary forms of tuberculosis which unquestionably require many months of bed rest usually in a sanatorium. In these classifications the *usual* regimen is prescribed for varying lengths of time. INH is routinely used in the combination for at least the first year of drug therapy in all children except possibly those with reinfection tuberculosis. In cavitary reinfection, or cavitary primary disease, where drug resistance more read-

ily develops PAS is included in the combination until there is sputum conversion. If the course is very stormy, SM-INH-PAS may all be given for a while to such children. After sputum conversion there is no contraindication to changing back and forth between INH-PAS and INH-SM, or after one year, to SM-PAS but there is definite contraindication to allowing breaks in treatment or discontinuing the whole course too soon.

In reinfection tuberculosis collapse therapy is not used. Resection may be indicated as in adult patients for persistent cavity, unresolved caseous focus, et cetera.

In tuberculosis of the spine, pelvis and hip, rest on a frame is used to prevent weight bearing for eighteen months or possibly two years after which time ambulation with a brace may be allowed. Depending on the amount of destruction which has occurred before the initiation of treatment, fusion may be necessary if and when the child is old enough. Fusion is most often needed in lesions of the lumbar spine where a brace may not give adequate support. For involvement of the knee, ankle, and foot, sitting in bed is allowed. After one or two years the patient may ambulate with crutches. In lesions of the upper extremity the child on bed rest is relied on to voluntarily avoid use of the involved part until healing is well under way. Casts are seldom used and the results seem better without such complete immobilization.

Genitourinary tuberculosis is treated with the *usual* regimen. All three drugs are advisable.[13,15] Prolonged bed rest is necessary.

The *usual* regimen is used for peritonitis. Bed rest is maintained for at least nine months. Paracentesis is done for diagnosis or to relieve pressure.

The treatment of pleurisy is as indicated for peritonitis but in most cases with a shorter period of drug therapy since the pleural shadow clears, rarely leaving any x-ray residual, and it is easier to evaluate the underlying or associated condition than is the case in peritonitis.

Primary tuberculosis is included in Group II, Group III and Group IV since the amount of clinical and x-ray manifestations vary so widely. Furthermore, these cases comprise the largest classification of in-sanatorium patients and observations on the rate of culture conversion and x-ray clearing are statistically more significant. In Group II are included all primary cases which have: (1) stormy symptoms regardless of the size of the x-ray lesion, and (2) those with extensive x-ray findings regardless of the paucity of symptoms. Among the latter group are those designated at Maybury as Primary with Bronchial Complication (PBC). Since the 1930s when collapse therapy was sometimes advised for a progressive consolidation, especially if cavitation were present, investigation by x-ray, physical findings, bronchoscopy and bronchography[8-10] revealed the following characteristics of these so-called PBC lesions: On x-ray the segment, or lobe, which is the site of the primary parenchymal lesion becomes dense and the tracheobronchial nodes may be obscured. Mediastinal shift is uncommon but may be present when the whole lung is involved. The size of the lobe is decreased in 50 per cent and increased in 5 per cent of the cases. Fever and cough are not in keeping with the long x-ray course. Wheezing, the most common symptom, is not constant, and rales are rarely heard. Resonance and breath sounds are almost invariably decreased. On bronchoscopic examination 74 per cent of these children have one or more of the following abnormalities: extrinsic pressure, thick secretions, tuberculoma, ulcer, or a lymphnode draining into the bronchus. When adequate contrast media mapping could be obtained, 70 per cent of cases had bronchiectasis in the originally involved parenchymal segment, extending from the root to the periphery. Before AMT was available positive cultures sometimes persisted for five years even with progressive x-ray and clinical improvement. All segmental lesions[1] admittedly do not fall into this category but since without time and serial x-rays the differentiation cannot always be made, the term PBC has been used for the whole group for simplification. Recent reports indicate the role played by nodes perforating the bronchus in adult patients.[5,6]

Such children receive water vapor inhalations and the crib mattress is tilted to facilitate drainage of either the upper or lower lobes. In babies, particularly good nursing care is required with emphasis on keeping the trachea relatively free of secretions and assuring the retention of regular feedings. If the baby has such profuse bronchial secretions that change in position results in emetic cough, the routine should be arranged so that change in position and coughing are completed and some rest obtained before feeding or oral medication (thirty to forty minutes).

Under the present therapeutic regimen (see

TABLE IV. INITIAL CULTURE STATUS VS EXTENT OF PRIMARY LESION (CASES)

	Nodes	Par+	Par++	Par+++	Total
No. Cases	36	153	62	30	281
Pos. Cultures	16%	25%	34%	40%	27%

TABLE V. CULTURE CONVERSION (CASES)

	Initial	3 Mos.	6 Mos.	9 Mos.	12 Mos.
AMT	28%	3%	0	0.8%	0
Control	25%	20%	15%	12%	19%

TABLE VI. CULTURE CONVERSION (SPECIMENS) TOTAL SUBSEQUENT CULTURES

	Per Cent Negative	Per Cent Contaminated	Per Cent Positive
AMT	92	5.3	2.7
Control	63.6	0.6	35.8

above) resection is rarely required because of persistent positive cultures. This contrasts with the 1947-1952 period when only SM and PAS in short courses were used. During this period nine children required pulmonary resection for persistent positive cultures or residual bronchial pathology.

Incidence of positive tubercle cultures among 281 children having primary tuberculosis evidenced by either nodes only or nodes associated with parenchymal lesions one, two, or three plus in extent is shown in Table IV.

The conversion rate for these 281 cases is shown in Table V for (1) AMT group and (2) Control group.

When in this same group of 281 children a study of all cultures taken subsequent to one month of admission is made, the striking effect of AMT on culture conversion is again evident (Table VI).

Among the AMT group, of the positive cultures in which regrowth was obtained for resistance studies (twelve initial and seven subsequent cultures) the SM resistance (S/R) was interesting if not statistically significant especially because of the small number of positive subsequent cultures. Among the AMT group it was found that of the cases which remained positive, 29 per cent showed tubercle bacilli resistant to SM. However resistance studies done on the initial sputums showed that 26 per cent of the positive cases were already resistant to SM. These findings show the proportion of children which may be expected to be infected with SM resistant tubercle bacilli and indicate a need for doing resistance studies on all sputum positive children.

Although AMT has lessened the proportion of seriously extended primary lesions, caused more complete resolution and reduced the number and size of calcifying residuals, it has not prevented an increase in the parenchymal lesions in certain cases.[7] These x-ray worsenings, occurring mainly in recent lesions, apparently take place in spite of a reduced population of tubercle bacilli since negative cultures almost invariably were obtained coincident with the x-ray increase. With continuation of AMT these x-ray increases usually clear readily but not so rapidly as would a nontuberculous pneumonia.

Group III

The asymptomatic simple primary and superficial lymphnode cases are placed in Group III since they may require relatively little hospitalization and bed rest compared with the duration of AMT.

When compared with the PBC type of primary case, a much smaller proportion of the total simple primary cases being seen in the clinic are admitted to Maybury. Those admitted receive the *usual* regimen of drugs and, for at least a few weeks, modified bed rest. The same management is indicated for those who remain at home.

Tuberculin positive older children with x-ray evidence of apparently arrested primary and babies with BCG positive tuberculin reactions who develop acute or subacute pulmonary episodes which do not respond promptly to broad spectrum antibiotics should receive the *usual* regimen of AMT at least until atypical pneumonia is ruled out or until reports from serial cultures of the sputum or gastric washings are available.

In children with tuberculous involvement of the superficial lymph nodes on admission to the sanatorium, modified bed rest is enforced until all constitutional symptoms have disappeared and until any sinus drainage has become indolent. The development of serious forms of tuberculosis and the tendency to exacerbation in these children make early management and prolonged AMT mandatory. The longer use of AMT, with INH in combination, has resulted in a decreased number in which surgical intervention was indicated. Any child having nodes, suspected of being tuberculous,

should be protected by AMT before aspiration or surgical incision. We have placed Streptokinase jelly in large sinuses leading to caseous nodes with good effect.[4]

Group IV

Children in this preclinical group have not to date been admitted to Maybury but, in the light of reports and discussions at recent national conventions, the possible need of AMT for them should be considered. The following two types of cases fall in Group IV: (1) a child of any age in whom there is a recent (within three months) conversion of the tuberculin test but x-ray is still apparently normal; (2) an apparently healthy baby who has had a recent, heavy exposure to tuberculosis but x-ray and tuberculin are still negative.

In the judgment of the writers, children of type (1) should be treated with INH, 2 mg./pound/day, and PAS, 45 mg./pound/day, for at least nine months. Children in type (2) should receive INH, 2 mg./pound/day, for at least four months.

In the heavy exposure cases there may sometimes be a hesitance in starting therapy before the tuberculin test becomes positive. If so, the child should be examined frequently, the tuberculin test and chest x-ray (PA and lateral) repeated biweekly and a daily record of his temperature and symptoms kept. Basic INH and PAS should be started at once (1) if the tuberculin converts, (2) if the x-ray shows evidence of developing lesions, or (3) if any signs or symptoms of illness develop even if the tuberculin test and x-ray are still negative. The tuberculin test may remain negative because of overwhelming disease or because of a prolonged latent period; a definitive chest x-ray in a child is very often difficult to obtain. If the child becomes ill, the *usual* regimen of AMT should be used; if miliary or meningeal tuberculosis become apparent or even suspected, the *drastic* regimen is indicated.

It is known that the most hazardous period for a tuberculous child is the first six months following conversion of the tuberculin test. Treating this type of child should prevent the development of serious tuberculosis. Among those children who have been infected with tubercle bacilli the percentage rate which develop serious tuberculosis is low but in each individual child who develops serious tuberculosis the rate is 100 per cent.

Discussion

The very effectiveness of present day therapy of tuberculosis introduces a problem in family relations. Even the most critically ill children usually show rapid improvement under AMT. Because their child looks so relatively healthy the parents may insist on taking him home prematurely, or, after discharge has been approved, may be less faithful in carrying thru their part of the outpatient program than they would be with a very well child. Thus, one of the problems of the physician is a careful evaluation of the child's home conditions (possibly disrupted anyway because of tuberculosis) to determine the degree of stability, patience, and understanding which will make for successful post-sanatorium treatment. The latter must include, in addition to the regular chemotherapy, attention to the child's general health, with prevention of fatigue, and providing an adequate diet. Polyvitamins are indicated, especially vitamin B_6 for the patients on *High* and *Medium* dosage of INH.

Most drug intolerance occurs in the early months of treatment and there have been few serious reactions among the children at Maybury. Even so, the family must be on the alert for possible drug reactions as long as the child is receiving AMT.

There is fairly general agreement regarding the treatment of demonstrable tuberculous lesions. More variation of opinion is found concerning those children with unproved (or less definite) lesions—the Group IV described above. Myers[14] and Waring[18] have stressed the wider use of the tuberculin test in early detection of tuberculosis. Waring states that it "would reveal recent converters (ideal for chemotherapy) and therefore those most likely to manifest signs and symptoms within a short period of time." He recommends routine chemotherapy for recent converters among highly exposed groups. Debre[3] found that after the tuberculin conversion in childhood the risk of tuberculous meningitis is 0.33 per cent; of tuberculous pleurisy, 3 per cent; and of pulmonary tuberculosis at the age of fifteen to twenty is 5 per cent.

All physicians responsible for children should (1) make tuberculin testing a part of the well-baby checkup, (2) consider tuberculosis early and more often in the differential diagnosis of sick children, (3) carefully evaluate all children with contact, (4) watch known tuberculin reactors even more carefully as they approach puberty, and (5) treat early and adequately all active tuberculosis.

Summary

Antimicrobial therapy (AMT) in children at Maybury Sanatorium has reduced the general death rate from 15 to 0.25 per cent and the meningeal death rate from 100 to 3.1 per cent. A positive gastric culture is rarely obtained after two months of combined drug therapy. The AMT regimens used in the past three years have permitted the earlier discharge of many children to complete their treatment as outpatients. This more rapid turnover of patients has eliminated the admission waiting list and allowed treatment of a greater proportion of earlier lesions resulting in more complete resolution. Treating recent converters and recently heavily exposed babies should further reduce the residual pathology and also prevent such tragic illnesses as meningeal and bone tuberculosis.

References

1. Bentley, F. J.; Grzybowski, S., and Benjamin, B.: Tuberculosis in Childhood and Adolescence. London, England: National Association for Prevention of Tuberculosis, 1954.
2. Chapman, Paul T., et al: A statement by the committee on therapy concerning the treatment of tuberculous meningitis. Am. Rev. Tuberc., 70:756-758 (Oct.) 1954.
3. Debre, R., and Brissaud, H. E.: Indications for treating primary tuberculosis in children. Presse med., 62:524 (April) 1954.
4. Hazlehurst, George N.: Streptokinase-streptodornase in the local treatment of suppurative extrapulmonary tuberculosis. Am. Rev. Tuberc., 71:1-10 (Jan.) 1955.
5. Hulse, W. F.: Bronchoglandular sinus tracts in tuberculosis. Dis. Chest, 25:312-314 (March) 1954.
6. Islen, H., and Suter, F.: The role of perforation of hilar lymphnodes into the bronchial tree of adults. Dis. Chest, 25:302-310 (March) 1954.
7. Jones, Edna M., and Howard, W. L.: Treatment of tuberculosis in children. Pediatrics (in press).
8. Jones, Edna M.; Peck, Wm., and Willis, H. S.: Bronchiectasis following primary tuberculosis. Am. J. Dis. Child., 72:296-300, 1946.
9. Jones, Edna M.; Rafferty, T. N., and Willis, H. S.: Primary tuberculosis with atelectasis (epituberculosis). Am. Rev. Tuberc., 46:392-405 (Oct.) 1942.
10. Jones, Edna M.: Peck, Wm. M.; Woodruff, C. E., and Willis, H. S.: Relationship between tuberculosis and bronchiectasis. Am. Rev. Tuberc., 61:387-397 (March) 1950.
11. Lincoln, Edith M.: The effect of antimicrobial therapy on the prognosis of primary tuberculosis in children. Am. Rev. Tuberc., 69:682-689 (May) 1954.
12. Lincoln, Edith M.: Tuberculosis in children. Nat. Tuberc. A. Bull. (March) 1954.
13. Muschenheim, Carl: A schema of treatment in tuberculosis. Am. Rev. Tuberc., 172:1-11 (July) 1955.
14. Myers, J. A.: Relationship of tuberculous infection to illness. Am. Rev. Tuber., 71:885-888 (June) 1955.
15. Pfuetze, Karl H., et al: Present status of chemotherapy in tuberculosis. Dis. Chest, 27:582-586 (May) 1955.
16. Robinson, Arthur, and Ro, Young-Ha: Tuberculous meningitis in infants and children. Am. J. Dis. Child., 87:139 (Feb.) 1954.
17. Wadell, Wm. M. et al: Treatment of tuberculous meningitis. Am. J. Dis. Child., 87:273 (March) 1954.
18. Waring, Jas. J.: The significance of small epidemics of tuberculosis. Dis. Chest, 27:170-176 (Aug.) 1955.

HEART OF THE HOME CLASSES

(Continued from Page 1288)

Booklet Describes AHA Services to Physician

"The American Heart Association Serves the Physician," a booklet listing and describing the professional services of the Association, is now available.

The booklet summarizes the research support program of the Heart Association. It gives pertinent information on the availability of professional education aids prepared by the Association, including films, audio-visual presentations, medical literature, heart models and charts. It also describes the periodical publications published by and for the Association.

Copies of "The American Heart Association Serves the Physician" may be obtained from the Michigan Heart Association at the address listed above.

Thoracic Injuries

Analysis of 1,309 Cases

By Richard L. Rapport, M.D.
Robert B. Allen, M.D., and
George Curry, M.D.
Flint, Michigan

IN recent years there has been a notable increase in the number of thoracic injuries occuring in civilian life. During the year 1947 only 70 injuries of the chest were seen at Hurley Hospital. During 1954 over 300 patients with chest injuries were seen.

Since the beginning of World War II great advances have been made in the management of injuries to the chest, and many fundamental principles of treatment and prevention of complications have been established.

Material

During the years 1947 to 1954, inclusive, 1,309 patients with thoracic injuries were seen at Hurley Hospital. There were 918 inpatients (70 per cent) and 391 outpatients (30 per cent) (Table I). One hundred four were open injuries, all of which were admitted to the hospital.

Associated Injuries

Four hundred thirteen (45 per cent of those admitted to the hospital) suffered a total of 569 associated injuries (Table II). Most are significant as regards morbidity and mortality. Special mention should be made of craniocerebral injuries, since coma with resultant loss of cough reflex, leading to retained secretions, atelectasis and pneumonitis tends to complicate the appraisal of a primary thoracic injury. Many associated injuries restrict the examiner in his evaluation of the chest because of limitations in positioning the patient. In all patients with trauma the individual must be considered as a whole and no one injury neglected for another.

Injuries to the Chest Wall

Injuries to the chest wall include rib fractures, subcutaneous emphysema, fractured sternum and flail chest. There were 994 such injuries (Table III).

TABLE I. THORACIC TRAUMA (1947-1954).
TOTAL THORACIC INJURIES, 1,309.

	Outpatients		Inpatients	
	No.	%	No.	%
Closed	391	30	814	62
Open	0	0	104	8
Total	391	30	918	70

TABLE II. ASSOCIATED INJURIES

Other Fractures	363
Craniocerebral	160
Abdominal	37
Total (Injuries in 413 patients)	560

TABLE III. INJURIES TO THE CHEST WALL

Rib Fractures	819
Subcutaneous Emphysema	106
Fractured Sternum	42
Flail Chest	27
	994

Eight hundred and nineteen patients had fractured ribs. As recently as 1940 Hinton and Steiner stated, "the paucity of the literature of fractures of the ribs in the past 10 years is readily explained by the frequency of the fracture and relative infrequency of complications."[13] We agree with O'Rourke and Cameron, however, who state that the fracture of a single rib may result in any of the complications which are common in severe chest injuries.[21] Because of the proximity of the bony rib cage to vital underlying organs complications tend to be serious. This is substantiated by a review of the literature.[4,7,8,11,12,13,25,34] We recently reported 730 patients with fractured ribs and found complications in 41 per cent of those admitted to the hospital (28 per cent of the entire group).[23] Of inpatients 4.9 per cent died with the thoracic injury the sole or a decisively contributing factor to death. We concluded that the fractured rib is frequently associated with other chest injuries which are responsible for a formidable list of complications and associated with a relatively high mortality rate.

Management of fractured ribs should be directed toward the prevention of complications. Immobilization of the chest by adhesive strapping is ineffective. Narcotics, likewise, are mentioned only to be condemned. Therapy should be directed towards increasing respiratory movement and promoting cough. This objective is best attained by judicious use of intercostal or paravertebral nerve blocks and the use of expectorants.

From the Section for the Surgery of Trauma (Thoracic Surgery), Hurley Hospital, Flint, Michigan.

TABLE IV. INJURIES TO THE PLEURA

Hemothorax	143
Pneumothorax	123
Pleural Effusion	24
Chylothorax	0
	290

Such a program relieves pain without decreasing the cough reflex and decreases the viscosity of the secretions so that cough maintains the desirable toilet of the tracheobronchial tree. Frequently, one intercostal block will be sufficient. Because of the overlapping nerve supply one nerve above and one below the fracture site should be injected. This should be repeated if necessary. For expectorants, we use sodium iodide intravenously (1 Gram twice daily) or syrup of hydriodic acid by mouth (drams 1 four times daily). If cough is impossible or ineffective, nasotracheal catheter aspiration or bronchoscopy may be necessary. Sampson and Brewer have given an excellent discussion of the indications for each.[26] Tracheotomy may be advisable,[3,31] and we are encouraging this procedure more frequently.

Subcutaneous emphysema reported in 106 patients appears alarming when extensive but is seldom serious.[2,7] Specific treatment is unnecessary since a patent airway is always present.[33]

Paradoxical respirations occur as a result of multiple rib fractures with a flail or "stove in" chest. Twenty-seven of our patients had such an injury. Paradoxical motion results in a serious inhibition of effective respiration and treatment must be initiated immediately. The pain from a flail chest will respond dramatically to intercostal nerve block and paradoxical motion improve following this procedure. Positioning with the involved side down, adhesive strapping or sand bagging may be used as emergency treatment. If these prove inadequate, skeletal traction or internal fixation may be necessary. Tracheotomy is frequently done to reduce the dead air space, decrease resistance to respiration and provide easy access for removal of secretions.

Forty-two patients had fractures of the sternum. Sternal fractures, if severe, may lead to paradoxical motion. Skeletal traction should be applied. Most sternal fractures, however, do not result in significant flail chest and should be treated by injection of the fracture site with 1 per cent procaine. Internal fixation by intramedullary plates, subcutaneous plates or wire suture may be considered but is seldom necessary.

Intercostal neuralgia, osteomyelitis, and intercostal aneurysms were not found in this series.

Injuries to the Pleura

Injuries to the pleura consist of hemothorax pneumothorax, pleurisy with effusion and chylothorax (Table IV). Two-hundred and ninety of our cases had such injuries or complications. Others have found significant incidence of pleural complications.[2,7,10,29,30]

Hemothorax—One hundred twenty-four of our cases had blood in the pleural space. Hemorrhage may occur from parenchymal, intercostal, internal mammary or great vessels. It is generally agreed that early and complete aspiration of the pleural space should be accomplished.[3,5,7,10,12,14,20,27,29,30,32] Thoracentesis should be done "early, often, and diligently and without air replacement to reduce the incidence of chronic clotted hemothorax, empyema and atelectasis, resulting in pulmonary suppuration, altered pulmonary function, and permanent disability."[20] Enzymatic débridement may be used to liquefy the clot but we agree with Valle[30] that resultant pain, febrile reactions and failure to show improvement by x-ray makes this procedure of doubtful value. If hemorrhage is progressive, despite thoracentesis, early thoracotomy with evacuation of clots and control of hemorrhage is indicated. Indeed, McEachern employs this as a primary procedure if over one-third of the lung is encased by hemothorax.[19] Organizing hemothorax may occur despite treatment. If loculations should prevent effective thoracentesis or if fibrothorax results, decortication is performed between the third and fifth week.[10,14]

Pneumothorax.—Air in the pleural space was demonstrated by roentgenograms in 123 patients. Pneumothorax may result from either open or closed injuries. Open wounds with chest wall defects (sucking wounds) should be converted immediately into closed wounds by occlusive pressure dressings and the pneumothorax then treated appropriately. There is general agreement as to the management of tension pneumothorax which may constitute a true surgical emergency. Air should be withdrawn by thoracentesis at once. Small, uncomplicated, closed pneumothoraces likewise present no controversy. If the collapse is less than 20 to 25 per cent, no specific treatment is required. It should be emphasized, how-

ever, that the degree of collapse is often underestimated on roentgenograms. Moreover, what initially is an insignificant amount of collapse may progress so that repeated observations are essential. One of us (RLR) recently discussed the management of spontaneous pneumothorax and concluded that closed catheter drainage should be instituted if collapse is greater than 25 per cent.[24] This applies equally to traumatic pneumothorax. Indwelling catheter in the second anterior intercostal space with water seal drainage has been recommended by many.[2,3,7,9,14,18,27,30,32] The advantages of closed catheter drainage are manifold. Complete, early re-expansion of the lung is desirable for prevention of pleural effusion, persistent bronchopleural fistula, and empyema. Most effective closure of the parenchymal tear is by re-expansion of the lung so that visceral and parietal pleura come into contact with sealing of the fistula by adhesion of the pleural surfaces at the site of rupture.

Pleural Effusion.—This is an infrequent sequella and was seen in only twenty-four of our patients. Management should consist of persistent thoracentesis.

Chylothorax.—This is a rare complication which was not seen in our series. Baldridge and Lewis[1] collected 59 cases in 1947.

Pulmonary Injuries

Pulmonary injuries and complications consist of pulmonary contusion and/or laceration, tracheobronchitis, atelectasis, pneumonia, pulmonary edema and pulmonary abscess (Table V).

Pulmonary injuries were seen in 344 patients. These are inter-related, and two or more frequently were present in the same patient. The term traumatic wet lung has been given to various combinations of these complications.[6,7,12,28] We approve of this terminology since it implies the sequence of events: retained secretions, tracheobronchitis, atelectasis and pneumonia.

The first consideration in treatment must be for an unobstructed airway and evacuation of the tracheobronchial tree. Intercostal or paravertebral nerve block is most important and should be done early. When pain is relieved, the patient coughs and clears his own secretions dramatically. Nasotracheal catheter aspiration, bronchoscopy or tracheotomy may be necessary. Expectorants as well as detergents by aerosol may be used with good effect.

TABLE V. PULMONARY INJURIES

Contusion and/or Laceration	159
Tracheobronchitis	80
Pneumonitis	55
Atelectasis	47
Pulmonary Edema	2
Pulmonary Abscess	1
	344

TABLE VI. MEDIASTINAL INJURIES

Pneumomediastinum	7
Cardiac Injuries	6
Hemomediastinum	4
Lacerated Aorta	2
Traumatic Asphyxia	1
	20

Acute pulmonary edema was seen in two patients and pulmonary abscess in only one. The danger of pulmonary abscess, however, is ever present, considering the potential for infection provided by areas of hemorrhage into pulmonary parenchyma together with the ready source of infection from traumatized and contaminated bronchioles and bronchopleural fistulae. If the lung abscess fails to respond to conservative measures, early thoracotomy with decortication or resection is indicated.

Mediastinal Injuries

Mediastinal injuries are relatively rare in injured persons who reach the hospital. There were twenty instances of pneumomediastinum, hemomediastinum, cardiac injuries, lacerations of the great vessels and traumatic asphyxia (Table VI).

Pneumomediastinum was seen in only seven patients and was not a serious situation in any. Cardiac injuries were seen in only six patients and injuries to the great vessels in only two. Others have reported an incidence of from 2½ to 16 per cent.[8,12,15,16,17,22] Early thoracotomy with exploration of the heart should be considered in all patients with a diagnosis of cardiac injury. Cardiac tamponade may be treated either by thoracotomy or by pericardiocentesis.

Traumatic asphyxia refers to that situation where there is a dusky cyanosis of the upper part of the body following a compression injury to the chest. This results from momentary reversal of superior vena caval blood flow into its valveless tributaries with distention and rupture of small venules and capillaries. If the patient survives the first hours, the prognosis is good.

TABLE VII. ABDOMINAL INJURIES

Abdominal Organs		45
Liver	15	
Kidney	12	
Spleen	11	
Small Intestine	4	
Stomach	2	
Adrenal	1	
Ileus		33
Lacerated Diaphragm		9
		87

TABLE VIII. MORTALITY

Due to Thoracic Injury	20
Due to Associated Injury	23
Due to Both	17
	60

Thoracic injury contributed to death in 37 patients: 4 per cent of 918 admitted to the hospital; 3 per cent of all 1,309 patients.

Abdominal Complications

Certain abdominal injuries are so frequently related to thoracic trauma that we consider them complications rather than associated injuries. These include injuries to the liver, kidney, spleen, small intestine, stomach and adrenal (Table VII). Acute gastric dilatation, ileus and lacerated diaphragm are also considered here.

Eighty-seven patients developed pathology at or immediately below the diaphragm. The problem is amplified when one considers how often signs and symptoms of chest injury are referred to the abdomen in the absence of intra-abdominal pathology. Differential diagnosis between true abdominal trauma and referred pain is often difficult and requires frequent examinations, including evaluation of the abdomen after appropriate blocks of intercostal nerves. Details of management are not in the realm of this discussion.

Lacerated diaphragm was found in ten patients. Some degree of pleural effusion and hemothorax was always present; consequently, the diagnosis was difficult to establish by physical examination and standard roentgenograms. One should always be suspicious if x-ray reveals elevated diaphragm on the involved side. Diagnostic pneumoperitoneum is frequently helpful in establishing the diagnosis. Surgical exploration should be done early in all patients whose condition permits. Delayed repair may be done in severely injured patients who survive.

Acute gastric dilatation and/or ileus was present in thirty-three cases in which there were no intra-abdominal injuries or fractures of spine or pelvis. Treatment is by intestinal intubation and careful observation for causes which may require active intervention.

Mortality

Autopsy was performed in thirty-seven (61 per cent) of the sixty patients who died (Table VIII). It is sometimes difficult, even with autopsy, to evaluate the role thoracic injury played in these deaths. Twenty-three of the sixty patients who died had thoracic injuries too minor to have contributed to death. Twenty patients had associated injuries lacking or insignificant, so that death was attributed to the thoracic injury. In a third group of seventeen patients, serious injuries of the thorax existed concommitantly with associated injuries so the cause of death could not be established. In thirty-seven patients the thoracic injury was either the sole or decisively contributing factor to death. Thus, we have established a mortality rate of 4 per cent for the 918 patients admitted to the hospital or 3 per cent for the total group of 1,309. This compares with a mortality rate variously reported ranging from 4.1 to 24.5 per cent.[4,7,8,11,12,13,23,25]

Summary

We have presented a series of 1,309 patients with thoracic injuries. These included injuries of the chest wall, pleura, pulmonary parenchyma, mediastinum and diaphragm. Abdominal complications related to thoracic trauma were briefly discussed. Principles in management were outlined and mortality statistics analyzed.

References

1. Baldridge, R. R., and Lewis, R. V.: Traumatic chylothorax: a review of the literature and report of a case treated by ligation of the thoracic duct and cisterna chyli. Ann. Surg., 128:1056-1078 (Dec.) 1948.
2. Belsey, R.: Civilian chest injuries. Practitioner, 170:134-141 (Feb.) 1953.
3. Bernaty, P. E.; Kirklin, J. W., and Olsen, A. M.: Severe crush injuries of the chest: some problems in management. Proc. Staff Meet., Mayo Clin., 28:193-199 (April 8) 1953.
4. Bistolfi, S.: Sulle complicanze pleuro-pulmonari delle fratture costali. Radiol. med., 17:1255-1308 (Nov.) 1930.
5. Brodkin, H. A.: Traumatic hemothorax. Am. J. Surg., 72:569-572 (Oct.) 1946.
6. Burford, T. H., and Burbank, B.: Traumatic wet lung: observations on certain physiologic fundamentals of thoracic trauma. J. Thoracic Surg., 14:415-424 (Dec.) 1945.
7. Cameron, D. A.; O'Rourke, P. V., and Burt, C. W.: An analysis of the management and complications of multiple (3 or more) rib fractures. Am. J. Surg., 78:668-676 (Nov.) 1949.
8. Findlay, R. T.: Fractures of the scapula and ribs. Am. J. Surg., 38:489-494 (Dec.) 1937.
9. Forsee, J. H.; Bigger, I. A.; Burford, T. H.; Harken, D. E., and Samson, P. C.: The initial management of patients with thoracic injuries. A bulletin pre-

pared for the committee on trauma of the American College of Surgeons, (March 15) 1952.

10. Gray, H. K., and Fryfogle, V. D.: Thoracic injuries in World War II: 1. General considerations, alterations of pulmonary physiology, and therapy in the initial and reparative phases. U. S. Armed Forces M. J., 2:1127-1150 (Aug.) 1951.
11. Haubensek, L.: Uber Rippenfrakt. und ihre Folgezustande. Arch. orthop. u. Unfall-Chir., 21:551, 1923.
12. Heroy, W. W., and Eggleston, F. C.: Non-penetrating injuries of the chest. New York J. Med., 51:2515-2520 (Nov. 1) 1951.
13. Hinton. D., and Steiner, C. A.: Fracture of the ribs. J. Bone & Joint Surg., 22:597-607 (July) 1940.
14. Jensen, N. K.: Management of patients with trauma of the chest. Minnesota Med., 36-247-248 (March) 1953.
15. Kissane, R. W.: Traumatic heart disease; nonpenetrating injuries. Circulation, 6:421 (Sept.) 1952.
16. Knoepp, L. F.: Fractures of the ribs—a review of 386 cases. Am. J. Surg., 52:405-414 (June) 1941.
17. Leinoff, H. D.: Direct nonpenetrating injuries of the heart. Ann. Int. Med., 14:653-666 (Oct.) 1940.
18. Lindskog, G. E., and Liebow, A. A.: Thoracic Surgery and Related Pathology. New York: Appleton-Century-Crofts, 1953.
19. McEachern, C. G., and Arota, J. E.: Treatment of chest injuries. J. Indiana M. A., 46:105-110 (Feb.) 1953.
20. O'Connor, J. P.: Thoracic injuries in World War II: 2. Therapy in the reconstructive phase. U. S. Armed Forces M.J., 2:1277-1287 (Sept.) 1951.
21. O'Rourke, P. V., and Cameron, D. A.: Common injuries to the thorax. S. Clin. North America, 33:1069-1080 (Aug.) 1953.
22. Osborn, G. R.: Findings in 262 fatal accidents. Lancet, 2:277-284 (Sept. 4) 1943.
23. Rapport, R. L.; Allen, R. B., and Curry, G. J.: The fractured rib—a significant injury. Arch. Surg., 71:7-13 (July) 1955.
24. Rapport, R. L.; Thurlow, A. A., Jr., and Klassen, K. P.: Etiology and management of spontaneous pneumothorax. Arch. Surg., 67:266-275 (Aug.) 1953.
25. Richardson, D. J., and Papper, E. M.: Nerve blocking therapy for fractured ribs. J. Thoracic Surg., 16:432-437 (Aug.) 1947.
26. Samson, P. C., and Brewer, L. A., III: Principles of improving inadequate tracheobronchial drainage following trauma to the chest; further problems in treatment of wet lung. J. Thoracic Surg., 15:162-172 (June) 1946.
27. Samson, P. C.; Burbank B.; Brewer, L. A., III, and Burford, T. H.: Immediate care of the wounded thorax. J.A.M.A., 129:606-610 (Oct. 27) 1945.
28. Sanborn, E. B.: Clinico-pathologic aspects of traumatic wet lung. Am. J. Surg., 87:457-461 (March) 1954.
29. Sellars, T. H.: Haemothorax. Lancet, 1:143-144 (Feb. 3) 1945.
30. Valle, A. R., and Watkins, D. R.: The treatment of intrathoracic wounds. Mil. Surgeon, 111:422-428 (Dec.) 1952.
31. Williams, M. H.: Multiple rib fracture; an indication for tracheotomy. Surgery, 30:664 (Oct.) 1951.
32. Willnes, C. E.: War wounds of the thoracic respiratory apparatus. Surg., Gynec. & Obst., 97:735-747 (Dec.) 1953.
33. Windsor, H. M.: The immediate management of closed chest injuries. M. J. Australia, 1:134-138 (Jan. 31) 1953.

ERRORS OF OMISSION AND COMMISSION IN DIAGNOSIS AND TREATMENT OF PULMONARY TUBERCULOSIS

(Continued from Page 1302)

Pas. He showed a remarkable clearing up not only of his arthritis but of his tuberculosis as well. However, such cases are best treated in an institution where frequent x-rays and sputum studies are available.

Summary

The importance of a routine x-ray examination of the chest has been stressed with every complete checkup of a patient.

The necessity of x-raying every patient before a long course of antibiotic therapy is begun for symptoms such as, frequent chest colds, pleurisy, et cetera.

The dangers of using cortisone for rheumatoid arthritis in the presence of either active or arrested cases of tuberculosis is discussed.

References

1. Doerner, Alexander A., et al: The development of tuberculous meningitis following cortisone therapy. Am. Rev. Tuberc., 64: (Nov.) 1951.
2. Bulletin Nat. Tuberc. A., 37:4 (Jan.) 1951.
3. King, Ernest Q., et al: Tuberculosis following cortisone therapy. J.A.M.A., 147:238 (Sept. 15) 1951.
4. Oatway, William H., Jr.: Delays in the diagnosis of tuberculosis from the incautious use of antibiotics. Tuberculosis Abstracts, 25:2 (June) 1952.
5. Popp, Carol G., et al: Cortisone and pulmonary tuberculosis. J.A.M.A., 147:241 (Sept. 15) 1951.

Some Medical Aspects of Exophthalmos

By Richard M. McKean, M.D., and Robert H. Hamburg, M.D.

Detroit, Michigan

THE INTERNIST commonly regards exophthalmos as an ophthalmic manifestation or complication of a process that is essentially a medical disease. In the study of patients with exophthalmos, over the past decade, we have found ourselves faced with a recurring quandary as to the basic etiology, the precise presenting clinical status and the beginning and end of this disorder.

Dictionaries define exophthalmos as a "protrusion of the eyeball," and proptosis in essentially the same terms. Uncomplicated proptosis may be found as a simple hereditary predilection, like the Hapsburg chin or the Wellington nose. This type of exophthalmos will be characterized by the early notice it brings from juvenile contemporaries, by the lack of any progression through the years and by its occurrence in a certain number of the siblings. This tendency needs no further attention than appropriate recognition.

Exophthalmos may be due to an encroachment on the orbital space by cellulitis due to invasion from paranasal sinuses, by neoplasm, or vascular anomalies such as hemangiomata, arteriovenous aneurysm, or cavernous sinus thrombosis. This type of exophthalmos is almost always unilateral and associated symptoms and signs usually initiate appropriate searches for the etiologic factor.

A pronounced bilateral form of exophthalmos is often found in a relatively rare type of lipodystrophy—Schüller-Christian-Hand disease. This process occurs in children and is associated with characteristic bony defects due to fatty infiltrations, and diabetes insipidus.

The most common endocrinologic disorder linked with exophthalmos has been a "dysthyroid" state—either primary, as in thyrotoxicosis, or intermediary, as in the so-called "thyrotrophic type." In this latter group, the anterior lobe of the pituitary, through its thyrotrophic hormone or through a more recently reported exophthalmic factor, probably plays a significant role in some cases of exophthalmos. Various disturbances in adrenal cortical and gonadal function have also been suggested as factors playing some part, probably in the role of trigger or accessory mechanisms, in the production of exophthalmos.

A widely varied clinical picture can be noted in this type of endocrine exophthalmos. It may present with a definite assymetry in individual eye prominence but usually the process is bilateral and equal in the two eyes. There may be only widening of the palpebral fissures (Dalrymple's sign) with upper and/or lower lid retraction due to sympatheticotonia and with little or no measurable proptosis (false exophthalmos). There may be marked proptosis with lid retraction, with weakness of one or several of the extraoccular muscles, with conjunctival edema (chemosis) and periorbital swelling. As the proptosis continues, exposure leads to infection and pressure produces optic nerve damage. As would be expected, then, the subjective complaints range from a completely assymptomatic state through tearing, burning, photophobia, blurred vision and diplopia to marked reduction of visual acuity and even blindness.

Graves, in 1835,[1] described the occurrence of exophthalmos in one of three patients with evident thyrotoxicosis, and principally from that report the term exophthalmic goiter has prevailed since. Peculiarly enough the approximately one-in-three occurrence rate of exophthalmos in thyrotoxicosis in this brief series has followed throughout the vast reports of recent decades. In these latter series with surgical treatment of the thyrotoxicosis, the exophthalmos has receded in most cases, has remained stationary in others and, in a significant minority, has progressed to become the progressive or malignant exophthalmos.

Exophthalmos may occur without evident hyperthyroidism and, indeed, has been reported in apparently true Gull's myxedema with recession in some occurring coincident with the administration of thyroid extract in corrective dosage. We have wondered from our own experience whether the periorbital edema commonly present

From the Metabolic Research Unit and the Department of Medicine, Harper Hospital, Detroit, Michigan.

This article was prepared to be used conjointly with the article by A. D. Ruedemann, M.D., entitled "Glandular Type Exophthalmos" which was published in the September issue of THE JOURNAL of the Michigan State Medical Society. We regret there was not sufficient space to use the articles together as they were intended. Dr. Ruedemann's publication depends in part on the above presentation, and the two articles should be read together.

in the myxedematous state may have been responsible in part at least for the foregoing impression.

For the past several years, we have been interested in the type of exophthalmos frequently reported as occurring in the so-called "euthyroid" patient. With a careful history these patients are often found to show manifestations of both hypothyroidism and hyperthyroidism. The laboratory studies ordinarily used in thyroid function, e.g., basal metabolic rate, serum cholesterol and protein bound iodine levels, are in such cases within essentially normal limits, or, at the most, equivocal results are obtained. Hence these people are usually termed euthyroid and attention is directed away from the thyroid gland as a consideration for further remedial measures for correction of the existing exophthalmos.

However, when a precise surface scanning technique is employed in the I^{131} tracer studies (as used in the Radiological Research Division at Harper Hospital for the past eight years or more and as described by Drs. Corrigan and Hayden elsewhere,[2] the thyroid gland is found to show a peculiarly spotty type of radioactive iodine uptake, characterized by a low level accumulation of the labeled iodine over much of the gland, particularly over its lateral and superior aspects, but with a rapid and sustained uptake in one area or several areas, usually in the central thyroid zone.

Serial detailed *small aperture* studies taken with a *1 cm. aperture cap* essentially in direct contact with the skin over the prethyroid area, at short intervals over a thirty-four to fifty-hour period, reveal: (1) that these areas maintain iodine retention throughout the study; (2) that they concentrate the labeled iodine in counts at least twice as great as the surrounding gland and (3) can be clearly demarcated from the surrounding gland. These results have indicated to our colleagues in the Radioisotope Laboratories and to ourselves that these toxic foci may well be toxic adenomata in most instances.

It was of interest to us that, in all but a few patients so studied, the single twenty-four-hour post I^{131} fixed distance count generally employed (presumably registering an aliquot of gamma emanation from the thyroid area) has been within 20 to 45 per cent, ordinarily accepted as the normal range. A condition similar to the above has been observed to occur in segmental toxic recurrence in the residual of the gland following thyroidectomy.

In this group of what we have termed "mixed gland dysthyroidism" we are confronted with potentially confusing and misleading laboratory findings and clinical symptoms and signs—a picture fraught with controversy. Yet on the basis of clinical and I^{131} tracer findings as noted above we have approached the problem of therapy in an increasing number of this group (twenty-five) through the therapeutic use of radioactive iodine (I^{131}). It is usually necessary to follow with an appropriate dosage of thyroid extract to maintain the patient in a normo-metabolic state as measured by serum protein bound iodine level, cholesterol level and symptomatic response.

Two examples of this group, which will be discussed in detail at another time, are presented to emphasize some of the points previously noted. The first of these was of apparent spontaneous development; the second was incident to a toxic recurrence after previous thyroidectomy. We had the opportuinty of studying these cases presented and the remainder of the series on a number of occasions in the Metabolic Unit at Harper Hospital.

Case 1.—As a rather striking example of exophthalmos occurring in a patient with what we have considered "false euthyroidism," the following case is presented in some detail. B. F., a fifty-four-year-old, white married school teacher, was referred to Dr. A. D. Ruedeman in the autumn of 1952 because of six to seven months of failing vision which seriously interfered with her career. It was accompanied by a sharply progressive exophthalmos—equal and bilateral. There was a complete inability to move her eyes, laterally, chronic eye discomfort and tearing. An ophthalmic diagnosis of glaucoma had been made by an examiner in her community. She had been carefully studied by a competent internist who had found her to have a repeatedly normal basal metabolic rate (BMR) and blood cholesterol levels, with a clinical impression of "euthyroidism" plus a relatively long-standing vascular hypertension. Her metabolic history in the usual sense was not remarkable but on closer questioning the following facts were felt to be significant: there had been a recent change from her usual former pattern of a slow morning start over the years to a more propulsive alertness—from scant sweating to an almost continuous warm moisture of hands and feet. There was no heat or cold sensitivity, although a fine rhythmic tremor of outstretched fingers was present. She had difficulty maintaining her weight (5 feet 4 inches—114 to 117 pounds) in spite of what she considered a normal food intake. Dry skin and scalp with some brittleness of the nails were noted. Hence clinically there was

neither marked hyperthyroidism nor definite hypothyroidism, but a mixture of symptoms and signs of each.

Physical examination revealed a blood pressure elevation to 200/100; a frankly multinodular indurated thyroid gland was noted. Eye findings were as follows: (1) a rather marked widening of the inter-palpebral fissures in part due to levator spasm; (2) a definite proptosis with Hertel readings of 23 bilaterally; (3) marked conjunctival injection and chemosis; (4) complete inability to move the eyes to the left, with very limited movements to the right; (5) pronounced convergence and insufficiency, and (6) marked lid-lag bilaterally.

The routine laboratory procedures—urinalysis, blood count, blood nitrogen and sugar, Kahn test, et cetera—were normal. Metabolic studies included a BMR of plus 3, cholesterol 290 mg. per cent I^{131} tracer study revealed a definite area of frankly increased and sustained uptake over the center of the gland, although total twenty-four hour uptake by the fixed distance counter and urinary excretion were percentagewise normal.

On October 8, 1952, 6 MC of I^{131} were given P.O. in an attempt to control her suspected dysthyroidism. She was restudied in December, 1952. Her eyes objectively were better and she felt that her vision had improved somewhat. BMR was minus 11, PBI 2.8 and cholesterol 375 mg. per cent. The tracer again demonstrated a significant, though definitely lessened, persistence of the previously noted toxic area and she was given another 6 MC of I^{131}. Thereafter, she gradually lapsed into rather marked hypothyroidism, if not frank myxedema.* (While we had formerly more or less used the development of myxedema as an end point of treatment, as experience with this mode of therapy has been gained, we now feel that the development of post I^{131} myxedema may usually be predicted and prevented by the starting of thyroid replacement treatment between the fourth and sixth weeks.)

In February, 1953, thyroid was started at gr. ¼ per day. BMR was minus 11, PBI 2.8. By April her BMR was minus 5, PBI 3.7, cholesterol 215 mg. per cent. The thyroid extract was gradually increased to gr. 1¼, but in spite of this by September, 1953, she exhibited a "metabolic sag." Her present status shows a rather remarkable improvement. Hertel measurements: OD 21, OS 20. BMR plus 7, PBI 4.4 and cholesterol 300. Her last note in mid-December, 1954—"Feeling very well with maintenance of normal weight of 128 pounds, with good tolerance of day's activities and vision essentially normal even without glasses." The only residuals from her former eye abnormalities were a slight soft subortibal puffiness with essentially normal extraocular movements throughout and a minimal lid lag.

Case 2.—C. L., the second patient, is a slender, thirty-one year old, white woman, who had been found to have classical symptoms of diffuse hyperthyroidism with exophthalmos and was treated by subtotal thyroidectomy in 1949. This procedure led to a remission of all symptoms except the exophthalmos which, though it remained, was frankly lessened in degree.

Nine months prior to her first admission to Harper Hospital in October, 1952, she became conscious of an increasing irritability, palpitation, insomnia and an increasing prominence of the eyes. Paradoxically, there was also noted scant perspiration, dryness of the skin and scalp and a frank morning inertia—ordinarily clinical evidences of a hypothyroidism.

On physical examination the following was notable: (1) resting pulse 72-84/min.; (2) recurrent nodular enlargement in region of the thyroid isthmus; (3) fine tremor of the fingers; (4) marked bilaterally equal exophthalmos, with proptosis, chemosis, an inability of the eyes to converge, and with extraocular muscle movements diffusely impaired, with impairment in various directions; (5) weight 106.

Laboratory: blood counts, urinalysis and Kahn test were normal. BMR was minus 1, PBI 6.2, cholesterol 245 mg. per cent. Tracer study showed 3½ times normal initial rate of concentration of I^{131} in the central and right anterior thyroid area with main concentration being noted in a focus about 4 cm. in diameter just to the right of the mid-line. The radioactive material was well retained in this area over a fifty-hour observation period. Only 31 per cent of the tracer was excreted in the urine over a fifty-hour study.

Treatment: On October 23, 1952, 10 MC of I^{131} were given. She was next seen January, 1953, at which time BMR was minus 26, PBI 2.6, cholesterol 460 and weight 124 pounds. Tracer showed soft tissue and liver retention of the I^{131} with very little functioning tissue in the thyroid area. Fifty-two per cent of the tracer was excreted in thirty-eight hours. Her clinical appearance was typically myxedematous. Thyroid extract was started and increased slowly from ½ gr. to ¾ gr. When seen in August, 1953, muscle cramps which had been complained on in January, 1953, had been completely relieved with the administration of thyroid extract. Skin normal. Scalp dry. BMR minus 20. PBI 4.2 cholesterol 320. I^{131} tracer studies showed almost complete depression of "pick up" in the area previously described. Desiccated thyroid was increased to gr. ii daily without adverse symptoms. She was away from Detroit and not seen again by us for sixteen months. In May, 1954, cortisone 50 mg. (p.c.) was prescribed by another physician, gradually decreasing to 12½ mg.; cortisone then discontinued because results did not justify possible undesirable side effects. Again on December 16, 1954, she reported she had been "quite good" in general, though a moderate photophobia persisted. There was little periorbital edema, and only a slight stare; extraocular movements were good throughout excepting a mild convergence insufficiency and an exceedingly slight lid lag; no conjunctival injection; nodularity was evident in thyroid area, and general physical examination was without note in other particulars. BMR was minus 9, PBI 4.4, cholesterol 320 mg. per cent, weight 111. Because of the incomplete replacement indicated by these latter her thyroid dosage was

(Continued on Page 1351)

*This is a probably undesirable but not unusual consequence of even moderate dose radioactive therapy in this type of dysthyroid patient.

Brachial Plexus Block Anesthesia

By Paul S. Johnson, M.D.
and
F. E. Greifenstein, M.D.
Detroit, Michigan

THE usefulness of brachial plexus block has been adequately demonstrated in clinical practice for surgery of the upper extremities. It offers to the patient, the surgeon, and the anesthesiologist distinct advantages which are not possible with general anesthesia. Brachial plexus block produces anesthesia only in that limited region where anesthesia is required and with no untoward disturbance of physiology of the individual. The patient may be ambulatory and, barring untoward complications, may be treated on an outpatient basis. It affords excellent anesthesia for surgery of the upper extremity where other forms of anesthesia are contraindicated. Brachial plexus block, as well as other forms of conduction anesthesia, is a particular boon to the surgeon in a rural or small community where the services of an anesthesiologist are not readily available. Certainly it is advantageous in the surgery of trauma in the patient who enters the operating theater with a full stomach.

It is the purpose of this article to review the complications of brachial plexus anesthesia which were encountered in a large city hospital and where many of the blocks were administered for surgical repair of injuries resulting from trauma. The anesthetic procedures were performed by physicians with varying degrees of skill and experience, ranging from staff physicians to interns. Most of the procedures were done by resident physicians in anesthesiology.

The hazards and complications of brachial plexus block have been documented by many authors.[3-7,10-12] In a period of two calendar years (1952-53), 432 brachial plexus blocks were performed in our institution. While these cases may furnish no valid statistical material, they are interesting examples of some of the previously described hazards of this procedure.

From the Department of Anesthesiology, Wayne University College of Medicine, and Detroit Receiving Hospital.
Present address of Dr. Johnson is Medical Arts Square, Albuquerque, New Mexico.

The patients on whom the blocks were performed were followed when possible during their hospital course for possible complications. These patients were also requested to return for examination by the Social Service Department of the hospital to enable us to follow any possible neurological sequelae which might arise from the anesthetic procedure. All but seventy-three of the patients were contacted either personally or by telephone conversation and those in whom potential sequelae were suspected were returned to the hospital for follow-up examination.

The complications in this series may be divided into the following categories:

	Number	*Percentage*
1. Pneumothorax	7	1.62%
2. Subarachnoid injection	2	.46
3. Drug reaction	6	1.38
(a) Vasomotor collapse (4)		
(b) Disorientation (2)		
4. Nerve injury	6	1.38
Total	21	4.8 %

Pneumothorax

Pneumothorax, perhaps the most frequent complication of brachial plexus block, was seen in seven of our cases. Moore[10] in his recent discussion on this subject found a 1 per cent incidence of pneumothorax in his clinic and cites other articles showing the incidence to vary from 2 to 0.66 per cent. In his article Moore also questions the occurrence of so-called "silent" pneumothorax following brachial plexus block.

The pneumothorax developed immediately or in several hours. Two of the cases were distinguished by accompanying vasomotor depression, one moderate in degree, the other severe. Both responded to intravenous fluid therapy and the administration of a vasopressor drug (methoxamine).

Where the pneumothorax was of such severity as to require treatment, this was accomplished either by syringe aspiration of the chest or insertion of a thoracotomy tube, and was successful in every case. No further sequelae were encountered.

Subarachnoid Injection

In two patients, the local anesthetic was inadvertently injected into the subarachnoid space during attempted brachial plexus block. Both patients recovered uneventfully from this complication.

Case 1.—D.D., a ten-year-old white boy, was admitted to the hospital with fractures of the distal end of the radius and ulna. The patient had breakfast about four hours prior to the contemplated procedure, and for this reason and because of the patient's fear of general anesthesia, brachial plexus block analgesia was chosen. Some difficulty was encountered in eliciting paresthesias utilizing the supraclavicular approach, so the block was supplemented, using the paravertebral approach described by Labat.[7] After the injection of 10 cc. of Lidocain Xylocaine 1 per cent at the paravertebral route, the patient suddenly experienced difficulty in breathing. Within a short time respirations ceased and the patient lost consciousness. The patient was apneic for a period of eighty minutes. During this period, he was given artificial respiration and maintained a satisfactory blood pressure and appearance. Three minutes thereafter, the patient became conscious and complained that he "felt numb all over." The patient made an uneventful recovery and was discharged the next day with the fracture in good position.

Case 2.—T.H., a forty-six-year-old colored man, was admitted with a stab wound of the right arm. He was inebriated and unco-operative. In an effort to reinforce his brachial block, the anesthesiologist directed his needle to the paravertebral site. During the time of injection, the patient lurched and shortly thereafter became unresponsive. The patient's blood pressure became unobtainable and respiration ceased. The administration of vasopressors brought a satisfactory increase in blood pressure, and artificial respiration was given with success. Spontaneous breathing returned in about sixty-five minutes and consciousness in ninety minutes. At this time, general anesthesia was induced with cyclopropane and ether so that the operative procedure could be completed. The patient made an uneventful recovery and was discharged from the hospital.

These two cases, which had been executed using Labat's technique, caused doubts as to the advisability of the paravertebral injection to supplement the supraclavicular. Bonica,[2] however, points out that the paravertebral site should be cephalad to the supraclavicular. This variation takes advantage of the caudad slope of the cervical transverse processes and lessens the possibility of subarachnoid injection.

Drug Reaction

Six patients exhibited what were apparently untoward reactions to the local anesthetic. It is perhaps significant to note that in none of the blocks performed in this series was epinephrine added to the local anesthetic mixture. This is not to be misconstrued that we do not favor the addition of epinephrine to the mixture, but the drug was purposely omitted for other studies. In two of these six patients, the fall in blood pressure occurred immediately upon injection of the local anesthetic but was of moderate degree and responded rapidly and well to intravenous fluid therapy. In one other case, hypotension ensued some fifty minutes after initiation of the block. The fall in blood pressure was severe but responded quickly to intravenous fluids and a vasopressor drug. A fourth patient was given a brachial plexus block with 25 cc. of Pontocaine 0.15 per cent solution. Almost immediately his bood pressure fell from 120/80 mm. Hg to 80/60 mm. Hg, and he became apneic. The hypotensive state responded readily to fluid therapy. However, the patient remained apneic. During this time, for some reason, he was given Pentothal (600 mg.) and the apnea continued for eighty minutes. It is difficult to assess the cause of the prolongation of apnea but we might well assume that the administration of pentothal in this relatively large dose contributed more than a little in his complication. Two of these six patients displayed rather severe excitement and disorientation following the injection of the local anesthetic. In these instances supplementation with Surital and nitrous oxide-oxygen was carried out and both patients responded well and made an uneventful recovery.

Nerve Injuries

The assessment of damage of the nerves of the brachial plexus is a difficult procedure since many factors are involved. Among these are the effect of preoperative trauma to the nerves, the effect of the surgery and its accompanying trauma, the irritating property of some local anesthetics, the concentration of the drug employed, whether or not tourniquets were applied during the operative procedure, and the effects of position and immobilization of the part for long periods of time. Since paresthesias are consistently sought for and elicited prior to the injection of the local anesthetic in the technique employed in our clinic, the question arises, as it has before: does this probing of the nerve trunk predispose to injury? Bonica[1] advances the opinion that such is not the case. Nerve injury and paralysis from the use of a tourniquet may mask or coincide with nerve injury resulting from brachial block or may in itself be totally responsible for the sequelae.[8]

Six cases of apparent nerve injury, three of which are presented below, were observed in this

series. Any definite conclusion as to their real etiology is questionable but at least one may have been due to the anesthetic procedure alone.

Case 3.—D.J., a twenty-four-year-old colored woman, was admitted on June 21, 1953, to the Detroit Receiving Hospital for a Z-plasty of the hand. She had suffered a bullet wound of the hand on May 2 and sustained a flexion contracture as a result. Xylocaine 1 per cent 25 cc. and Pontocaine 0.15 per cent 25 cc. were used to establish brachial plexus analgesia. There was nothing unusual about the anesthetic procedure and it was carried out in the routine manner. No tourniquet was used. The operation lasted fifty minutes. Postoperatively the patient complained of chest pain and shoulder pain but otherwise nothing unusual was noted. On August 1 the patient was seen in the clinic and it was definitely decided that she was suffering from motor and sensory impairment in the distribution of the ulnar nerve. She had flexion weakness of the fifth finger and hypesthesia in the fifth finger and ulnar aspect of the forearm. No improvement was noted either on September 15 or 22, 1953. The patient was then lost to the clinic. Telephone coversation during April of 1954 failed to reveal any improvement in the condition of the patient.

Case 4.—R.Y., a thirty-two-year-old colored man, lacerated his right index and third fingers while changing a tire. For tenorrhaphy, he had brachial block anesthesia with Cyclaine 1 per cent 25 cc. on May 27, 1953. A blood pressure type cuff was used for hemostasis, remaining in place almost four hours. There is no record of periodic deflations of the cuff. It was noted on August 8 that the patient had limited flexion of all fingers on the involved hand. He had, as well, paresthesias down his arm in the distribution of the ulnar nerve. On October 27 he was seen again in the clinic, where it was felt that ulnar sensation and flexion had improved. The patient was re-admitted December 21 for re-evaluation and possible surgical exploration of the brachial plexus. Physical examination at that time showed continued hypesthesia in the ulnar cutaneous distribution plus weakness of flexion of all fingers. Surgery was deferred at this time. It has been impossible again to interview the patient in person. Telephone conversation reveals an essentially static condition. He complains especially of paresthesias which emanate from the supraclavicular site and radiate down the ulnar aspect of his arm.

Case 5.—J. O., a thirty-two-year-old white man, had an exploration of an old ulnar nerve injury on September 30, 1953. There was some difficulty in induction of anesthesia because of the problem of eliciting paresthesias. Anesthesia was finally induced with Xylocaine 2 per cent 20 cc. and Pontocaine 0.15 per cent 10 cc. A pneumatic type tourniquet was applied and left inflated for one and one-half hours. Following operation, the patient was found to have a complete injury of the brachial plexus nerves in addition to his pre-existing ulnar defect. Radial and median loss were never complete but were quite disabling. The patient was given physiotherapy with a slow but definite return of all but ulnar function. On his discharge on March 15, 1954, he was considered to have only his original ulnar lesion. Some controversy arose regarding the role of the tourniquet in this lesion. It seemed impossible, however, to clarify the issue.

Summary

The brachial plexus block analgesia offers many advantages to the patient, surgeon and anesthesiologist in the management of surgery of the upper extremity. As do all anesthetic and surgical procedures, it is accompanied by certain hazards. We have attempted to cite the complications that have arisen in 432 cases in our clinic. Obviously we have not discussed all the complications that might arise but as we continue to do and teach the use of brachial plexus block, we expect that these too will become part of our statistics. Phrenic nerve block with consequent paralysis of the diaphragm, cervicothoracic (stellate ganglion) sympathetic block, puncture of the subclavian artery are other complications that might arise following attempted block of the brachial plexus.[3]

It is our experience that as one gains experience with this technique, the incidence of the complications certainly decreases. Many of the blocks in this series were done by residents in anesthesiology in the relatively early stages of their training, and this undoubtedly accounts for some of the experiences we have had. We feel that the technique is of inestimable value in emergency surgery where the hazard of regurgitation and aspiration under general anesthesia is ever present.

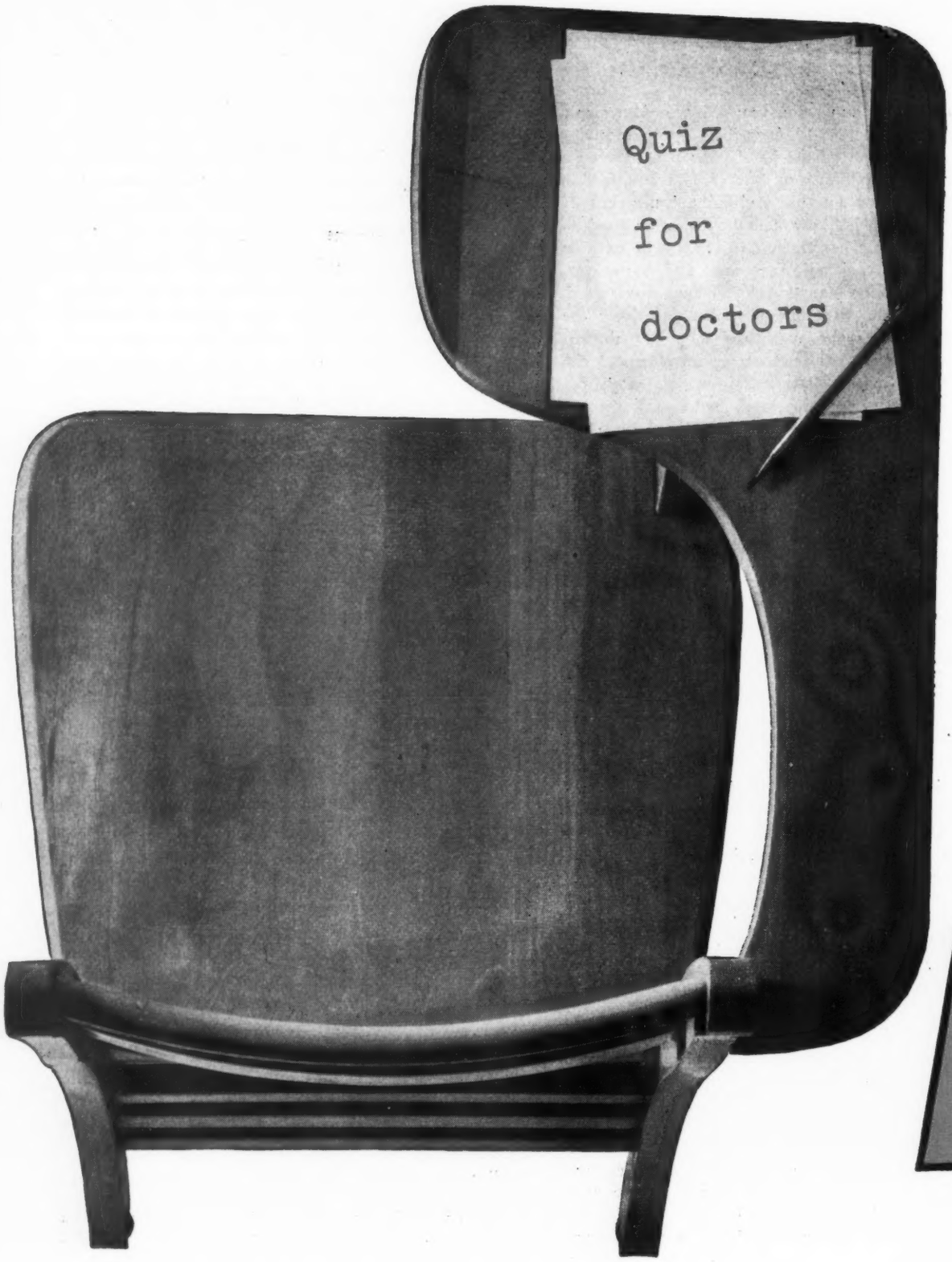
Acknowledgment

The authors are indebted and extremely grateful to Misses Geneva Mercomes and Charlotte Rolison, of the Social Service Department of the Detroit Receiving Hospital, for their invaluable aid in this study.

References

1. Bonica, J. J.: The Management of Pain. P. 305. Philadelphia: Lea and Febiger, 1953.
2. Bonica, J. J.: Brachial Plexus Block. Am. Soc. Anesth. Refresher course outline, October, 1953.
3. Bonica, J. J.; Moore, D. C., and Orlov, M.: Brachial plexus block anesthesia. Am. J. Surg., 78:65, 1949.
4. Bonica, J. J., and Moore, D. C.: Brachial plexus anesthesia. Curr. Res. Anesth. & Analg., 29:241, 1950.
5. Braun, H.: Local Anesthesia. P. 364. Philadelphia: Lea and Febiger, 1924.
6. Kulenkampff, D., and Persky, M. A.: Brachial plexus anesthesia. Ann. Surg., 87:883, 1928.
7. Labat, G. W.: Regional Anesthesia. P. 189. Philadelphia: W. B. Saunders, 1923.

(Continued on Page 1368)



you

Q. Wh
an
A.

Q. Wh
A.

Q. Ex
A.

Q. In
A.

Q. Wh
A

AC

you probably know every answer!)

Q. Which is today's most widely prescribed broad-spectrum antibiotic?

A. ACHROMYCIN — it's first by many thousands of prescriptions.

Q. What are some of the advantages of ACHROMYCIN?

A. Wide spectrum of effectiveness.
Rapid diffusion and penetration.
Negligible side effects.

Q. Exactly how broad is the spectrum of ACHROMYCIN?

A. It has proved effective against a wide variety of infections, caused by Gram-positive and Gram-negative bacteria, rickettsia, and certain viruses and protozoa.

Q. In what way are ACHROMYCIN Capsules advantageous?

A. For rapid and complete absorption they are dry-filled, sealed capsules (a Lederle exclusive!) No oils, no paste...tamperproof.

Q. Who makes ACHROMYCIN?

A. It is produced — every gram — under rigid quality control in Lederle's own laboratories and is available only under the Lederle label.

ACHROMYCIN*

Hydrochloride
Tetracycline HCl Lederle

Lederle

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY PEARL RIVER, NEW YORK

*REG. U.S. PAT. OFF.

Advances in Dermatologic Therapy

By Francis E. Senear, M.D.

Chicago, Illinois

PERHAPS in no other medical field have the steroid preparations been used in a wider group of disorders than in the case of dermatoses. It can be likewise said that they have been used all too indiscriminately in this field by a large proportion of practitioners. Following the initial period of optimism as to their effect in dermatological conditions, we are gradually acquiring an experience and knowledge which permits us at the present time to offer a reasonable evaluation of their usefulness.

First of all it should be appreciated that these agents do not effect many cures, and that in general they act only through the suppression of or the minimizing of symptoms and signs of disease. As serious consequences may follow the use of the steroids, they should be used only in those cases where there is definite indication for their employment, particularly if they are to be used for long periods.

Due to limitation of space, the side effects, both cutaneous and systemic, following the use of the steroids, will not be reviewed, but I will limit this discussion to a grouping of the types of disorders in which their use is indicated and mention some specific disease and their response to this type of treatment.

Group I.—There is general agreement that the steroids have a very definite place in the treatment of a number of acute disorders which are generally speaking not serious *per se,* although at times productive of severe distress and temporary incapacitation. Included in this group are cases of contact dermatitis, including those due to exposure to poison ivy; dermatitis medicamentosa, especially when due to penicillin or other antibiotics, the sulfa group or gold, and anyphylactoid or serum sickness types of reaction from penicillin or tetanus antitoxin; the severe type of erythema multiforme, as the Stevens-Johnson syndrome, and generalized eczematous dermatitis resulting from acute autosensitization. In this group of disorders the dosage does not need to be very high, the response on the part of the eruption and its symptoms is commonly rapid and the drug does not have to be used for more than a few days to a week, so the consideration of side efforts is not so important here. It should be recognized, however, that even in this group the steroids should be used only in severe and incapacitating cases, and in patients who present no contraindications to their use.

Group II.—Certain diseases which are chronic, but usually and frequently fatal, and in which there is a favorable response to the use of ACTH or cortisone. Pemphigus and the acute disseminated cases of lupus erythematosus, together with some cases of exfoliative dermatitis, are included here.

Group III.—Certain chronic diseases in which temporary improvement is secured in a varying proportion of cases. This includes neurodermatitis disseminata or atopic dermatitis, dermatitis herpetiformis, psoriasis, et cetera.

There is little disagreement with regard to the usefulness and indication for the use of the steroids in the cases included in the first two groups, but there is no unanimity as to their use in those diseases in the third group. In attempting to determine whether or not steroids should be used in this group, certain basic things should be kept in mind.

1. The clinical effect of the steroids is almost exclusively the reduction of the acute inflammatory process.

2. The effect of the drugs is palliative and temporary, with no effect upon the underlying disease process.

3. Relapse or the "rebound phenomenon" occurs usually as soon as the treatment is discontinued, and frequently the disorder is then more severe than it was before treatment was instituted. Likewise, the disease may not respond at all or as well upon reinstitution of the same therapy. It has also been observed frequently that during such relapses the eruption appears to be more resistant to the other methods of control than was previously the case.

4. That in these chronic cases maintenance therapy may be required for months or years, thus increasing the possibility of the occurrence of undesirable sequelae.

5. Flare-ups may occur during treatment as a result of a variety of factors—and the dosage of the drug may have to be increased even to a point above the original dosage used.

Presented at the Michigan State Medical Society Annual Session, September 29 to October 1, 1954, in Detroit, Michigan.

Therefore, in cases in this group and notably in the cases of atopic eczema, steroid therapy should be instituted only in those instances where the eruption is so severe as to be intolerable for the patients and where relief through the use of these agents seems imperative.

In cases of lesser intensity in this group, one must carefully weigh the therapeutic possibilities against the danger of undesirable side effects.

In considering individually some of the disorders to be treated with the steroids, those in Group I probably deserve first consideration.

In the systemic type of lupus erythematosus there is a dramatic effect on the fever, pulse rate, debility, arthralgia, pericardial and pleural effusions, while the cutaneous manifestations fade more slowly. The characteristic laboratory findings are not usually changed, although Curtis found that the lupus erythematosus cell disappeared in one-third to one-half of the cases. In this disorder the initial dose required may be high, up to 1,000 mg. of cortisone a day. As a rule the good effects of treatment are only temporary, continued administration with individually calculated dosage being required, and side effects frequently develop. With most patients with the acute type there is eventually a break through and they succumb to the disorder in spite of the continued treatment. Haserick does not believe that patients with mild systemic involvement should be treated with steroids unless the disease becomes progressively worse, hospitalization and supportive treatment only being indicated here. Curtis does not recommend the use of cortisone unless the white blood cell count is less than 5,000.

In pemphigus, the response is likewise striking in a large percentage of cases, pemphigus vulgaris responding better than the vegetative or foliaceous types. Many patients, however, do not respond at all, or after early response relapse and go steadily on to a fatal outcome. Among those who do respond favorably, the remissions are only temporary in a sizable proportion of cases, but the prognosis is much better than it is with lupus erythematosus. Lever reported on the treatment of thirteen cases with steroids, and all of these were alive at the time of reporting and eight of them free of lesions. Here again, maintenance treatment is usually required for months to years. With relapse following too rapid reduction in dosage or discontinuance of treatment, the condition is apt to be more severe and more resistant to further treatment. In some instances possible cures are obtained, since freedom from lesions with treatment have been reported for periods of over three years. Conrad found that cortisone by mouth seemed as effective as when administered parenterally, but felt that larger doses were required when the oral route was used. We have felt that we obtained our best results when the initial therapy was the use of ACTH by intravenous drip.

In exfoliative dermatitis the results of treatment are less consistent and steroids should be used only when older methods of treatment have failed. In the primary or Wilson-Brocq type of exfoliative dermatitis cortisone is indicated only if the course is steadily downhill, since the rebound reaction is great when treatment is discontinued. In the secondary types, due to the local or internal use of drugs, or due to the extension of other dermatoses when spread has been stimulated by various treatment measures, standard methods of treatment should be tried first.

All observers agree that in atopic eczema there is a favorable response in practically all cases if the dose is large enough and if the drug is given for a sufficiently long time. As stated earlier, the patient is never cured and the intensity and resistance in relapses, together with the severe depression often engendered in such patients, make it imperative to attempt treatment only in the most severe cases and only when all other methods of treatment have failed.

The response in cases of Sulzberger-Garb disease parallels those of atopic eczema.

Among other diseases in the collagenous group, there is considerable diversity of opinion as to their usefulness. In dermatomyositis O'Leary found the results unsatisfactory, and Kierland reported improvement in only one of four cases. Lever treated eleven acute cases, four of the patients dying, while five were in remission, one following a year without treatment. Hopkins placed dermatomyositis in the group of disorders unlikely to respond to steroid therapy, but Russo, Ferguson, Suzman and others have more recently reported good results. The response is best when the patient is treated early in the course of the disease.

Periarteritis nodosa has shown striking improvement according to Baggenstein and Goldman and others, but death may result from vascular damage produced prior to institution of steroid treatment. The results in scleroderma are inconsistent but all

agree that the basic process is not influenced and life is not prolonged. In some instances treatment of this type seems to produce a rapid deterioration in patients with scleroderma, and we have had two deaths occurring as a result of the production of a fulminating course of the disease. O'Leary felt that acrosclerosis was a contraindication, as in six cases of this disorder occurring in young women death from cerebrovascular accidents occurred within three to four months after the institution of cortisone therapy.

Treatment of psoriasis vulgaris with these agents is not recommended as the lesions do not often clear with such treatment, and relapse in more severe form often follows in those cases where improvement is obtained. In the arthropathic form and in the pustular type affecting the hands, good results are more constant but again only temporary.

Sclerema neonatorum, a disorder previously fatal in about 75 per cent of cases, has responded strikingly according to reports by several different writers, as complete recovery has occurred in several reported instances.

In herpes zoster the results are inconsistent but dramatic relief from pain has been reported a number of times. The steroids should be used in zoster only in the older age groups with severe involvement and in those failing to respond to conventional methods.

In lichen planus the effect of the steroids is also variable. Kristjansen and Reymann report that four of six patients were apparently cured after a short course of treatment, while two others showed no response. Sulzberger found that among nine patients, three responded promptly, while the itching was controlled in the others.

Among three cases of benign familial pemphigus (Hailey and Hailey disease) three patients were freed of eruption with relapse in only one.

In many instances the lesions of sarcoid of the skin, lungs, and eye have shown rapid clearing, but again with early relapse on cessation of treatment. Local injections of the cutaneous lesions with cortisone and hydrocortisone have produced rapid resolution of temporary nature.

In Reiter's syndrome likewise prompt relief was secured in three cases. Relapse occurred in all, but two of the three ultimately cleared completely.

With the malignant lymphomas relief of itching, when present, and temporary improvement of lesions may occur.

Local Use of Hydrocortone

It was to be expected that the local use of various steroid preparations would be tried, and at the present time it is felt that there is a distinct field for usefulness for hydrocortisone in this manner. A number of reports have indicated a high proportion of good results from the use of 1 per cent or 2.5 per cent hydrocortone in ointment form. The best effects have been secured in atopic dermatitis, in localized neurodermatitis and nummular eczema. The very high cost of the ointment prohibits its use in many cases of widespread dermatitis. Different observers disagree as to the value of the 1 per cent as opposed to the 2.5 per cent preparation, some feeling that the lower and less expensive concentration is usually as effective as the higher, while others feel that many patients who do not respond to the 1 per cent strength obtain favorable results with the stronger preparations. Nuchal eczema of the lichen simplex chronicus type and pruritus ani seem to respond particularly well. Alexander and Henderson reported that only three of twenty-nine patients with severe and intractable pruritus ani failed to obtain lasting relief. It has also been noted that the results appear to be better in certain areas than in others, response being good on the eyelids, ears, breast and pelvic regions in contrast with the neck, abdomen and extremities. Baer and Litt have found that ear drops containing hydrocortone, especially if reinforced with an antibiotic, such as neomycin, give better results than do ointments with the same make-up. Kendall has found that 2 per cent of hydrocortisone mixed with aerosporin solution was effective in otitis externa. Schoch feels, however, that there is danger in the use of such mixtures, in that in instances where the hormonal effect is marked and the bactericidal effect less, the condition might be made worse as a result of the increased infection. A number of patients with poison ivy dermatitis have been treated with hydrocortone locally and the results have been generally disappointing.

Personally, I am somewhat less enthusiastic about the local use of this preparation than are some of my colleagues, for, while in many instances the results are strikingly good, I have obtained good results in a smaller proportion of cases than some reports would lead you to expect, and in some of the cases where the early response was most favorable relapses have occurred even while the use of the ointment was being continued.

Acne Group

In recent years interest in the ever-present problem of the treatment of acne vulgaris has centered on two aspects of this disorder which had not previously received much attention: (1) the influence of hyperkeratinization of the follicular orifices in the production of lesions, and (2) the influence of the disturbance of the androgenestrogen ratio. Since the report by Frazier and Hu in 1936 of the tendency to follicular hyperkeratinization with a lack of vitamin A suggested the possibility that vitamin A might be of use in the treatment of acne, the past decade has produced a number of papers dealing with this method of treatment, and the earlier use of vitamin D has practically been abandoned. While there is no unanimity with regard to the effectiveness of vitamin A in acne, a number of writers have reported good results, but it is pointed out that the dosage of the vitamin must be large, with a minimum daily dosage of 100,000 units; that, while improvement may begin within a few weeks, treatment must be continued for some months, and that recurrences commonly take place with cessation of the treatment. This type of vitamin therapy is particularly indicated in those cases where the eruption is of the milder type, with comedos and papules, rather than in those cases where the deep pustular type of lesion exists. Recently, Morris has reported that the use of vitamin C, a deficiency of which may also cause hyperkeratinization, has produced improvement in forty-three of fifty-three patients who received an 8 oz. glass of citrus fruit juice and 3 gm. of ascorbic acid daily.

While there is no unanimity with regard to the manner in which sex hormones act in the production of acne, studies have shown that in patients with acne the level of androgens is raised, while that of the estrogens is normal or a little lowered, and a number of writers have postulated that the disturbed relationship in the ratio of androgen and estrogen levels is the important factor. Consequently, the most commonly used therapy in the hormonal field is the administration of estrogens, although progesterone has been used alone or in combination with estrogen.

With the use of estrogens, various treatment schedules have been advised. Becker uses diethylstilbestrol in a dosage of 0.25 to 0.5 mg. daily during a period which begins seven days after completion of the menses and continues until the onset of the next period. Others advocate the use of the drug for from fifteen to eighteen days per month, with treatment beginning immediately after cessation of the period, whereas others advocate that the estrogens be used during the last half of the ovulatory cycle.

Space does not permit an extended discussion of this phase of the treatment of acne, but the following statements may be made.

1. The hormonal treatment of acne is of use in many cases of acne, but the lack of uniform success and the possible undesirable side effects of such treatment suggest that its use should be reserved for those cases which do not respond to other measures.

2. The best results are obtained with those patients in the older age groups and in whom the acne is of a pustular or cystic type, particularly when the lesions are confined to or chiefly upon the lower cheeks and chin.

3. Results are much better with females than with males.

4. Results are best where there is a tendency to flares of the acne at the time of the menstrual cycle.

Lastly, in discussion of the treatment of acne it should be pointed out that in recent years it has been recognized that in those patients with the pustular, indurated or cystic type of lesion a valuable adjunct is the use of antibiotics or the sulfa drugs, particularly the newer preparations such as Elkosin and Gantrisin. While this type of therapy is not curative it is most effective in controlling these destructive lesions and lessens materially the possibility of scarring.

In a very recent study of this phase of acne therapy, Noojin et al found among the antibiotics penicillin the most effective agent in this field, with oxytetracycline (Terramycin), chlortetracycline (Aureomycin) and chloramphenicol (Chloromycetin), in that order, found to be next in effectiveness. Robinson, however, felt that penicillin by injection was of no value in the treatment of acne, and found terramycin, aureomycin and erythromycin to be most effective.

The antibiotics are used here in a dosage of 250 mg. three to six times a day until a good response is obtained, the dosage then being reduced gradually. Treatment may have to be continued in this field for many months.

Antibiotic Therapy in Dermatology

The introduction of the antibiotics has led to a complete change in the treatment of superficial pyogenic infections of the skin. With the introduction of penicillin, it was found that its local use was

rapidly effective in curing such infections as impetigo, but as it was productive of sensitization reactions even more frequently than the previously used mercurials, its use for these cases was abandoned as soon as other antibiotics became available. At present a number of antibiotic agents suitable for such local treatment are available. Aureomycin, chloromycetin and terramycin were soon tried out in this field and found to be eminently satisfactory agents. Streptomycin, bacitracin and gramicidin were also used. The use of streptomycin here was soon abandoned because of its strong tendency to produce sensitization reactions and because the organisms soon developed resistance. More recently neomycin, polymixin B and erythromycin have been introduced, together with combinations such as neomycin and bacitracin, polymixin B and bacitracin.

At the present time neomycin seems to have the widest acceptance because of its broad spectrum, its stability in aqueous solution and ointment bases, its low sensitizing index, and because it is seldom used internally; however, erythromycin, while not as yet as well evaluated as neomycin, has a firm position. Livingood has found erythromycin to be effective against staphylococcus aureus and beta hemolytic streptococcus, but not effective against the Gram-negative organism. He also felt that it appeared to be less well tolerated on denuded and eczematous skin than some of the other antibiotics. The combination of bacitracin, effective against a wide variety of Gram-positive organisms and neomycin, effective against a wide variety of both Gram-negative and Gram-positive organisms, is a very effective agent.

The superficial pyodermas such as impetigo and infectious eczematoid dermatitis respond much more rapidly than do the deep infections, such as sycosis barbae and folliculitis, but the latter type will clear with longer treatment in the vast majority of cases. When sycosis barbae does not respond, the quinolor compound of Squibb should be used.

Likewise, in the deeper types, including acne and hidradenitis suppurative, furuncles and carbuncles, parenteral antibiotic therapy should be employed. Furuncles and carbuncles respond particularly well to penicillin, although terramycin, aureomycin and erythromycin may be employed when there is intolerance for penicillin. It is, of course, desirable to test the causative organisms for sensitivity to the various antibiotics, but as this is not practical in private practice, good results may be expected in most cases with one or another of the available preparations.

Since these antibiotics do not appear to be effective against pseudomonas infection, presently regarded as responsible for many cases of otitis externa, a combination of polymixin B and bacitracin is usually used for the treatment of this disorder, and recently commercial preparations containing polymyxin, bacitracin and neomycin have been available.

Various reports indicate that with these newer antibiotics, impetigo vulgaris is cleared in an average of five days, folliculitis in seven and one-half days, and the secondary pyogenic infection in eczema, et cetera, in eight days.

Quinacrine (Atabrine) and Chloroquine (Aralen)

Since the report by Page in 1951 that in a large proportion of cases the chronic discoid type of lupus erythematosus responded to treatment with atabrine, many dermatologists have reported their results with the use of this drug, and in 1953 Goldman suggested the use of chloroquine, because of its lesser toxicity and because it did not produce the yellow discoloration so often caused by atabrine. Previously, the standard treatment for this disorder in its chronic phase had been the use of gold or bismuth salts, with sodium paba a more recent addition, but the proportion of good results was comparatively small and the course of treatment usually prolonged. At present the use of atabrine or chloroquine is the preferred method among dermatologists, and chloroquine is more widely used than is atabrine. The proportion of good results measured by striking improvements is high; although complete clearing occurs in only 20 to 25 per cent of cases, and relapse may occur with cessation of treatment. Kierland, Brunsting, and O'Leary state that the best results occur in patients with few lesions on exposed parts of the body.

At the present time, although evaluation is incomplete, it is felt that great caution should be used in the treatment of the subacute and the acute disseminated types of lupus erythematosus with these drugs. While Goldman reported striking improvement of cases of the subacute type treated with chloroquine, Brunsting stated that in three cases of this type treated with quinacrine the patients developed leukopenia, purpura and fever.

With quinacrine some authors use a dosage of

0.1 mg. three times daily for one month, 0.1 gm. twice daily for the next month, and then 0.1 gm. daily till the cessation of treatment. Others recommend the use of 0.1 gm. twice daily for two weeks, then 0.1 gm. daily for up to one year if needed. Chloroquine is usually used in a dosage of 0.25 gm. once daily, although some use this dosage twice daily for one to two weeks, following with a dosage of one 0.25 gm. tablet daily.

These drugs have also been found to be of use in some other diseases. Black, Rogers and Finn, Woodburn et al, and Knox et al have all reported that the use of these drugs has been helpful in the treatment of various dermatoses due to sensitivity to light, and Rogers found chloroquine to be more effective than quinacrine.

Cormia and Noun found that both pustular psoriasis and pustular bacterids responded to treatment with quinacrine in three to four weeks, and that the more common type of psoriatic lesions present with the cases showing pustular involvement, might show marked resolution at the same time.

In a paper presented at the June meeting of the AMA, Ayers presented a preliminary report indicating that chloroquine might be useful in the treatment of several other dermatoses, namely, lichen planus, verruca vulgaris, and verruca plana juvenilis, though they found it useless in the treatment of psoriasis.

Toxic symptoms from the use of these drugs include pruritus, nausea, anorexia, diarrhea, headaches, blurred vision and weight loss, and dermatoses of the lichenoid, pityriasis rosea type, seborrheic or dysidrotic types. Leukopenia, aplastic anemia, and liver damage have been reported, and so it is important that regular blood counts and urinalyses be made while these drugs are being used.

Stilbene in Blastomycosis

Curtis and Harrell, Jr., in 1952 employed stilbamidine and diethylstilbestrol in the treatment of blastomycosis, treating a patient with each of these drugs, and found that the two patients with cutaneous blastomycosis, treated with 3 mg. of diethylstilbestrol daily showed complete disappearance of their lesions in three to four months. The two patients with systemic blastomycosis showed rapid improvement after 3.0 gm. and 7.2 gm., respectively, the drug being diluted to a volume of 250 cc. or more and given by slow intravenous drip. The dosage is begun with 50 mg. a day, and with daily increase in increments of 50 mg. each. Callaway, likewise, obtained a good response in four cases treated with intravenous injections of stilbamidine, in doses of 150 mg. given daily by the intravenous route. Fink et al reported a case of cutaneous blastomycosis cured by two courses of stilbamidine of 1.8 gm. and 1.35 gm. respectively and Parisier et al treated a patient with systemic and cutaneous blastomycosis with stilbamidine for twenty-nine days with apparent cure. They point out that, while it is difficult to assume that the cure is permanent in a disease with a notable tendency to recurrence, stilbamidine produced a more effective remission in this case than any other method of treatment. Curtis, in a recent review of this treatment, stated that stilbamidine and hydroxystilbamidine have been used by various writers in a total of fifty-one cases of blastomycosis, seventeen of these being of the cutaneous type and thirty-four of the systemic variety, and that in this group only 17.6 per cent of relapses occurred. Curtis feels that this figure is too low, since from the standpoint of relapse he had three failures in five cases.

There are certain side reactions, notably a delayed trigeminal neuropathy and a tendency to the production of leukopenia. Fossey and Jackson (1953) reported a case of toxic psychosis following the use of stilbamidine in the treatment of blastomycosis and they felt that the drug was, at least in part, responsible for the development of the toxic state. If the drug is given too rapidly, and not by a slow drip method with great dilution, immediate nitritoid-like reactions, with tachycardia, breathlessness, dizziness, nausea and vomiting, fainting and sweating usually occur. The trigeminal neuropathy may occur from one to thirteen months after cessation of treatment, and is characterized by sensory disturbance, anesthesia, and various paresthesias, and these may extend downward to involve the neck and arms. This reaction has not occurred in the patients treated with hydroxystilbamidine, but takes place in about 60 per cent of the patients treated with stilbamidine. The treatment with stilbestrol, while effective, requires a dosage which commonly produces gynecomastia and even testicular atrophy.

Vitamin B_{12}

In 1953, Goldblatt reported complete healing in seven of ten patients with discoid lupus erythema-

tosus treated with vitamin B_{12}, while in five patients with subacute disseminated lupus erythematosus, complete resolution occurred in three, and the other two showed more than 75 per cent regression. His limited experience with this agent in the acute disseminated type suggested that it might be a useful agent here. The vitamin was given intramuscularly, and doses of 100 mg. seemed most effective. Daily administration of smaller doses appeared to be more effective than larger doses given once a week. Kopler in 1953 reported that large doses of 1,000 mg. given intramuscularly twice weekly had caused regrowth of hair in patches of alopecia of the scalp due to lupus erythematosus, and Schoch noted improvement in one case of subacute lupus erythematosus treated with 500 mg. intramuscularly three times a week in a patient who showed no improvement with 50 mg. three times a week. Marcus et al, however, found response to this type of therapy inconsistent, and only three of seventeen cases showed very favorable response, and results at the New York Skin and Cancer Hospital have likewise been unsatisfactory.

At the present time, therefore, it would seem that the use of vitamin B_{12} for the treatment of the various phases of lupus erythematosus should be restricted to those cases in which other standard methods have failed.

Reudemann recently reported excellent results in the treatment of psoriasis with large doses of vitamin B_{12}—1,000 γ (gamma) per cm.—intramuscularly once a day for fifteen to twenty days or longer, with maintenance doses once or twice weekly to follow.

Cutaneous Tuberculosis

While the various forms of cutaneous tuberculosis are not met with as frequently in this country as on the continent, they constitute a very difficult group from the standpoint of treatment. In the past, results of therapy on the whole have been disappointing. In recent years, however, four different agents have been added to our armamentarium, and the prognosis in cutaneous tuberculosis is much brighter than was previously the case. These several agents are streptomycin, Vitamin D_2 (or Calciferol) para-amino salicylic acid and isoniazid. It is not possible to go into detail here with regard to each of these drugs, but it should be said that with none of them are the results uniformly successful, and that the percentage of cures varies greatly in the different types of cutaneous tuberculosis.

Treatment with isoniazid (Rimofon), of course, is the most recent addition to the group of therapeutic agents, and observations made up to the present seem to indicate that it is the most effective and most rapidly acting of these drugs. Marchionini and Rockl, for example, reported that in a group of 108 cases of cutaneous tuberculosis, the great majority of which were cases of lupus vulgaris, improvement was rapid and consistent, while three of four cases of Bazin's disease were healed. They used a dosage of 10 to 15 mg. per kilo of body weight, a higher dose than is generally employed. Lieder and Sawicky, using doses of 2 to 4 mg. per pound (150 to 250 mg. daily for one to about seven months), found that among twenty patients with tuberculosis of the skin, they obtained excellent results in cases of lupus vulgaris, erythema induratum and scrofuloderma. Other observers have reported success in the treatment of tuberculosis cutis orificialis, tuberculosis cutis verrucosa and the rosacea like tuberculid of Lewandowsky. In general, the results with sarcoid are disappointing although response has occurred in some cases (Kile). With papulonecrotic tuberculids the effects are inconstant.

Healing begins to take place in from one to four weeks, and complete healing may occur in five to eight weeks after beginning treatment, although treatment may be continued for a longer period if necessary. The drug is usually very well tolerated although nausea, loss of appetite, abdominal discomfort, constipation, diarrhea, giddiness, dyspnea, thirst, headache and febrile reaction have occurred in a few cases. In cases of intolerance, desensitization has been accomplished with the use of small, increasing doses of the drug by the oral or intramuscular routes.

Bamber points out that the tubercle bacillus may acquire resistance to the isoniazid and suggests that streptomycin may then be used to obviate that possibility and to act as a synergist.

Treatment with Vitamin D_2 was introduced independently by three different men (Charpy in France, Fanielle in Belgium, Dowling in England.) It is difficult to set up any standard dosage with this agent since the element of toxicity plays so important a part. In general, a dose of 150,000 units daily for four to eight weeks, then 100,000 I.U. daily, is a widely used and effective dosage.

When calciferol is to be used, the serum calcium and phosphorus levels and the blood urea content should be obtained before beginning treatment, and the urea level should be checked frequently to avoid interference with renal function, as such a result may be permanent. Side effects are thirst, anorexia, constipation, headaches, severe vomiting, polyuria, mental depression, pains in the teeth, jaws, and joints, parasthesias and headache. Charpy advocates that patients using calciferol should reduce the intake of fat and salts and recommends that at least 1½ pints of milk be taken daily. Before Vitamin D_2 is used, it is essential that visceral tuberculous involvement be eliminated, since this drug may cause rapid activation of such a process. Marcussen states that in young subjects and in those with a weakly positive tuberculin reaction, calciferol has proved to be very prone to produce a rapid extension of visceral involvement. Calciferol treatment is especially effective in lupus vulgaris, tuberculosis verrucosa cutis and scrofuloderma, but in Baz'n's disease, micropapular tuberculosis of the skin and follicles, is rather ineffective, and the results with sarcoid are generally disappointing.

Huriez advocates the use of antibiotics and calciferol in alternation as giving better results than the use of the vitamin alone.

At the present time, para-amino salicylic acid and streptomycin are used chiefly in combination with or in alternation with the Vitamin D_2 or isoniazid therapy. Likewise, combined Vitamin D_2 and isoniazid treatment is suggested, as the former apparently acts by increasing the resistance of the host while the isoniazid apparently acts directly on the bacillus.

Experience with all of these agents is as yet insufficient to allow a final evaluation of their comparative values, or a determination of what combinations of two or more of them simultaneously or in sequence may be most effective. Also not yet determined with certainty is the incidence of recurrence or relapse in improved or presumably cured cases, since in some cases patients who appear to have been cured clinically will still show histological evidence of the disease. Likewise, some of the earlier measures such as ultraviolet light irradiation, salt-free diet or excision or local destructive measures may still have to be employed as adjuvant measures.

Seborrhea and Seborrheic Dermatitis

Until recent years the treatment of "dandruff" was restricted to the use of sulphur, salicylic acid and resorcin, but in the past three years there has been available a new preparation which has proved to be much more satisfactory than any agents used in the past. The use of suspensions of selenium sulfide, commercially available as Selsun Suspension, was first described by Slinger and Hubbard in 1951. They reported control of seborrhea capitis in 81 per cent of ninety-four cases of seborrheic dermatitis treated with this agent, with 95 per cent of favorable results in the mild cases and 85 per cent in the moderately severe type. Slepyan, in 1952, reported on 286 patients and found that complete control was obtained in 87 per cent. With the dry type of seborrhea, he obtained 92 per cent of good results and 85 per cent with the oily type. Bereston, in 1954, reported that he had treated 250 patients with seborrheic dermatitis of the scalp with favorable results in 88 per cent followed for a two-year period.

The product is extremely well tolerated and scaling and itching are usually relieved after two or three applications of the drug. It is usually sufficient to employ the preparation once a week but in patients with heavy scaling it may be used twice a week for two weeks, then once a week. As with any preparation used for the treatment of seborrhea capitis, the use of the drug must be continued indefinitely and the individual is soon able to determine for himself whether the salt is to be used once in one, two, or more weeks for control of his seborrhea. The drug is extremely toxic if taken internally but there is no evidence that systemic intoxication takes place from its use in restricted areas of the skin. Likewise, the preparation is extremely well tolerated locally.

One drawback to the use of selenium sulfide is the finding that in some patients the oiliness of the scalp and hair is notably increased. Sauer found this undesirable result in four of sixty-two patients. Likewise, in a few instances, persons with gray hair have developed a yellowish discoloration of the hair, but I have met with this only twice among a large number of patients with canities who have used the preparation.

Ayers used selenium sulfide in ointment form in 1 per cent strength in a water-miscible base in the treatment of seborrheic dermatitis of parts other than the scalp in thirty-seven cases, and ob-

tained a generally satisfactory response in 73 per cent and a highly satisfactory response in 46 per cent. There was, however, an incidence of 27 per cent of cases in which the condition was aggravated or in which there were complaints of irritation. Ayers felt that these reactions represented a primary irritant response rather than an allergic contact type reaction, and later reported that with the use of 0.5 per cent strength ointment the evidence of irritation was very low, a finding with which Nelson concurred.

Due to the possible toxic effects from absorption, the selenium salt should not be used on extensive areas at one time.

Pigmentary Disturbances

During the past three years attention has been called rather coincidentally to one treatment which restores lost pigment in vitiligo and to another treatment which removes excess melanin pigmentation.

In the treatment of vitiligo, a disorder previously unresponsive to any method of treatment, crystalline extracts of the plant Amma majus have been successful in producing complete recovery or great improvement. In some instances, the best results have been obtained when the oral administration of the drug was combined with painting of the leukodermatous areas with the drug plus exposure to ultraviolet rays, but in other instances the local treatment alone has given prompt response. Response to treatment begins in three to six weeks, and seems to take place more readily in younger patches, although patches of long standing may become repigmented. Lesions on the trunk respond most readily; those on the extremities, and especially those on the hands and feet, may require more than four months of treatment.

The tablets of Meladinin, containing 10 mg. of ammoidin and 5 mg. of ammidin, and a paint containing 7.5 mg. ammoidin—2.5 mg. ammidin per cubic centimeter—are available commercially.

Nausea, insomnia and nervousness may occur as side effects following internal use but are transient. Liver or renal disease, hypertension and arteriosclerosis are contraindications to the use of the drug internally.

Hyperpigmentation due to melanin has recently been treated with 20 per cent monobenzylether of hydroquinone in ointment form in 5 to 20 per cent strength (commercially available as Benoquin), and excellent results have been reported in the case of generalized lentigines, severe freckling, berlock dermatitis, and the melasma of Addison's disease, and some observers have reported good results in the treatment of the melasma of pregnancy and in postinflammatory hyperpigmentation. The pigment disappears in successfully treated cases in from three weeks to six months. The use of adhesive dressings over the ointment treated areas hastens the response. Occasionally sensitization to the ointment develops with the production of dermatitis, this occurring in eleven of eighty-four cases reported by Lerner and Fitzpatrick.

HEALTH INSURANCE COVERAGE

Health insurance coverage is at record high. Nearly two out of every three men, women, and children in the United States now are protected by voluntary health insurance, the Health Insurance Council announced in releasing the findings of its ninth annual survey of health insurance in America.

On December 31, 1954, a total of 101,493,000 Americans had hospital expense protection. This represents an increase of 4.3 per cent during that year. Since the beginning of 1941, the number of persons with hospital expense protection has multiplied nearly eight and one-half times.

Nearly eighty-six million persons had surgical expense protection, an increase of 6.1 per cent. About 85 per cent of those with hospital expense protection also had surgical coverage—up from a figure of 83 per cent one year earlier. Since 1941, the number of persons with surgical insurance has multiplied about 16 times.

Medical expense coverage increased by more than four million persons, or nearly 11 per cent, to a total of 47,248,000.

Nearly thirty-nine million workers had protection against loss of income due to disability, about 60 per cent of the civilian labor force.

The newest form of voluntary health insurance—major medical expense—covers 2,235,000 persons, a gain of 83 per cent.—Research Council for Economic Security.

President's Message

New or Old--But Fit

"All That's New and Fit to Use" is the theme of our 1956 Michigan Clinical Institute, to be held in Detroit, March 7-8-9. The finest teachers and clinicians throughout the country will be on this program. They will bring us the latest in therapy discovered or made available during the last 365 days. We recommend your attendance at this worthy Institute.

The theme of the MCI reminds us of another theme that's "old but fit to use." We are referring to the people's attitude toward the medical profession. Presently, there are many economic and social implications resulting from contacts with our patients and with their friends, especially how the doctor uses his leisure time in front of his patients.

This theme is old. But it's still a good thing to remember that a display of pseudo-wealth is never good, especially in the company of those we serve. It may be physically comfortable for a physician to own a large car and occupy the best house in the community, but at times that is not conducive to the best public relations for the medical profession as a whole.

Discussing the patient's attitude toward us may be "old hat," but today it's still fit. Let us look in the mirror and try to see ourselves as others see us. If that reflection displeases us, now is the time to cast off any vulgar clods of materialism and shine our countenance with those qualities our patients want to see in us. Let us all be fit to be called "Doctor of Medicine."

W. B. Jones.

President, Michigan State Medical Society

Michigan Clinical Institute--1956

Theme: "All That's New and Fit To Use!"

Sheraton-Cadillac Hotel, Detroit—March 7-8-9, 1956

TIME	WEDNESDAY March 7, 1956	TIME	THURSDAY March 8, 1956	TIME	FRIDAY March 9, 1956
A.M. 8:45	Registration. Exhibits Open.	A.M. 8:45	Registration. Exhibits Open.	A.M. 8:45	Registration. Exhibits Open.
9:00	SURGERY BLOCK J. E. DUNPHY, M.D. Boston, Massachusetts		SEVENTH ANNUAL MICHIGAN HEART DAY		OBSTETRICS AND PEDIATRICS BLOCK
		9:15	BENEDICT F. MASSELL, M.D. Boston, Mass. "Prevention and Prophylaxis of Rheumatic Fever"	9:00	MEYER A. PERLSTEIN, M.D. Chicago, Illinois "What's New in Cerebral Palsy"
9:30	EUGENE A. OSIUS, M.D. Detroit "Peripheral Arterial Disease"	9:45	ANTHONY C. NOLKE, M.D. Detroit and JAMES B. BLODGETT, M.D. Detroit "Interatrial Septal Defect—Its Clinical Course and Surgical Correction"	9:30	MILTON V. VELDEE, M.D. Palto Alto, California "Poliomyelitis Vaccine: Problems in Processing and Antigenic Value"
10:00	INTERMISSION TO VIEW EXHIBITS	10:00	INTERMISSION TO VIEW EXHIBITS		INTERMISSION TO VIEW EXHIBITS
11:00	Michigan Cancer Co-ordinating Committee Lecture: OWEN H. WANGENSTEEN, M.D. Minneapolis, Minnesota "Trends and Accomplishments in Alimentary Tract Cancer"	11:00	YOSHIKAZU MORITA, M.D. Detroit "Diuretics in the Treatment of Congestive Heart Failure"	11:00	CHARLES S. STEVENSON, M.D. Detroit "The Handling of Breech Presentation"
11:30	Michigan Foundation for Medical and Health Education Lecture: ALTON OCHSNER, M.D. New Orleans, Louisiana "What's New in Lung Cancer"	11:20	J. A. POLHEMUS, M.D. Ann Arbor "Clinical Evaluation of Sinthrom (G-23350), A New Oral Anti-Coagulant"	11:20	GEORGE S. SAYRE, M.D. Ypsilanti "Cystocele and Rectocele—Present-Day Indications for Correction, and Technical Advances"
12:00	DISCUSSION CONFERENCE	11:40	ANCEL KEYS, M.D. Minneapolis, Minnesota "Epidemiological Aspects of Heart Disease"	11:40	ERNEST H. WATSON, M.D. Ann Arbor "Recent Advances in Medical Care of Children"
P.M. 1:00	LUNCHEON	12:00	DISCUSSION CONFERENCE	12:00	DISCUSSION CONFERENCE
	TRAUMA BLOCK	P.M. 1:00	LUNCHEON	P.M. 1:00	LUNCHEON
2:00	WILLIAM C. BAUM, M.D. Ann Arbor "Management of Bladder and Ureteral Injury Following Pelvic Fracture"		INTERNAL MEDICINE BLOCK		GENERAL MEDICINE BLOCK
2:15	M. M. FROHLICH, M.D. Ann Arbor "Accident-Proneness"	2:00	TOM D. SPIES, M.D. Birmingham, Alabama "What's New in Vitamin and Hormone Treatment of Arthritis"	2:00	FREDERICK F. YONKMAN, M.D. Summit, New Jersey "What's New in Drugs, 1956"
2:30	GEORGE J. CURRY, M.D. Flint "Responsibility to the Injured"	2:30	R. W. WILKINS, M.D. Boston, Massachusetts "Rauwolfia in Hypertension"	2:30	ARTHUR C. CURTIS, M.D. Ann Arbor "Tips on the Treatment of Skin Diseases"
3:00	INTERMISSION TO VIEW EXHIBITS	3:00	INTERMISSION TO VIEW EXHIBITS	3:00	FINAL INTERMISSION TO VIEW EXHIBITS
4:00	NICHOLAS S. GIMBEL, M.D. Detroit "New and Old Methods of Managing Burn Wounds"	4:00	HENRY T. RICKETTS, M.D. Chicago, Illinois "What's New in Diabetes"	3:30	DAVID J. SANDWEISS, M.D. Detroit "What's New in Ulcerative Colitis"
4:15	E. STEPHEN GURDJIAN, M.D. Detroit "The Shoulder-Hand Syndrome"	4:30	LEO LOEWE, M.D. Brooklyn, New York "What's New in Antibiotics"	3:50	HERBERT E. SLOAN, JR., M.D. Ann Arbor "Cardiac Arrest"
4:30	MICHAEL L. MASON, M.D. Chicago "Injuries of the Hand"			4:00	JOHN T. FERGUSON, M.D. Traverse City "A New Approach to the Clinical Management and Treatment of Behavior Problems"
	MEETINGS OF ANCILLARY GROUPS		MEETINGS OF ANCILLARY GROUPS		End of 1956 MCI

Repeating the Popular "BLOCK SYSTEM"—A Truly Stupendous Scientific Session

Editorial

FACT AND OPINION

THE editorial columns of this issue, as do other issues and other journals, permit the expression of opinion whether or not supported by fact. This editorial, however, is a plea that opinion be held accountable to observed fact, that opinion follow fact and not lead it. This plea is needed now in our state on this tenth anniversary of the first observed fact that an antibiotic would effectively alter the course of human tuberculosis. During the ensuing decade other facts have been observed: that other drugs in combination with the antibiotic, and with each other, were needed to overcome failures; that dosage, timing, continuity duration, and precise laboratory control were necessary to success; that sputum could be rendered harmless, sometimes with and sometimes without surgery; that the pain of tuberculosis of the bladder, bowel, and larynx was relieved by definitive, rather than symptomatic treatment; that involvement of the trachea need not end in suffocation; that the terror of miliary and meningeal tuberculosis could be outlived.

All these facts are observed and recorded in hospitals and sanatoria. Whether or not they could have been, or can now be, duplicated outside of hospitals and sanatoria becomes a matter of opinion. The fact is, however, that opinion, both medical and lay, is the real factor that determines demand for beds in tuberculosis institutions. Regardless of fact, or before the fact has been determined, let opinion of either the physician or the patient hold that drugs alone, at home or at work, are sufficient; then our institutions will be rendered crippled and useless even though, in fact, they may be needed. It certainly may be possible to gather facts to demonstrate either that such institutions are unneeded at all or unneeded in such numbers and size. But up to this date such facts have not been observed and the demonstration has not been made.

The nearest thing to such a demonstration is the observed fact that those patients who have shown a successful response to institutional treatment may be discharged earlier if they then continue drug treatment outside under constant clinical and laboratory guidance and control. We can only trust that this recently demonstrated success will be lasting in a disease which in the past was capable of relapse many years after apparent success. In any event, the drug treatment needs to be continued without any interruption over a prolonged period of time. This is not prolonged treatment with merely an arbitrarily chosen set of drugs that are known to be effective in the average case. This is prolonged treatment with a definite drug schedule that was proven effective in that particular patient. This proof was obtained in the hospital while the patient was safely isolated from the uninfected.

There has been ample demonstration, as it has been said in Detroit, that, "Prolonged inadequate treatment is still inadequate." We still have failures. A bad start is still a bad start, and still means a bad end for a tragic number that were once hopeful, and had equally optimistic, but ill informed physicians.

Throughout recent decades, Michigan has acted and reacted with great vigor to all new opportunities for the treatment of its tuberculous. Each newly proposed method has been given a rigorous trial before Michigan has abandoned it. In this new opportunity, let us temper our vigor with wisdom and proceed toward our goal with "all deliberate speed!"

JOHN B. BARNWELL, M.D.
Chief, Tuberculosis Division
Veterans Administration
Washington, D. C.

PRIMARY ALDOSTERONISM

VERY rarely is a new disease entity described. Michigan is elated that such an honor should come to one of our members, Jerome W. Conn, M.D., Professor of Internal Medicine at the University of Michigan, Ann Arbor.

The condition was first described by Dr. Conn to his medical students in March, 1954, as a set of symptoms pointing suspiciously to an unusual abnormality of the adrenal glands. The condition was also considered to be related to kidney malfunction and high blood pressure. Dr. Conn made extensive studies of his patient for eight months.

For seven years, the patient, a thirty-four-year-old housewife, had been troubled by spasms, weak-

ness, and periodic paralysis of muscles. Tests showed an excess of salt in the patient's body, as well as a deficiency of potassium. She also had high blood pressure and kidney disease. A tumor of the adrenal gland was suspected and proven by surgery. There had been an excessive discharge of the hormone, aldosterone. The tumor contained tremendous amounts of the hormone.

This report constituted Dr. Conn's presidential address in October, 1954, before the Central Society for Clinical Research. The London *Lancet* (June 4, 1955) said, "This discovery may be as important to medicine as Harvey Cushing's recognition of the syndrome which bears his name."

The editor of *The Journal of the American Medical Association* (August 20, 1955) states, in describing Dr. Conn's work: "Evidence is now accumulating to suggest that increased aldosterone production may actually be the cause of a disease condition. Conn suggests that these cases (potassium-losing nephritis) represent a hitherto unrecognized syndrome. He has suggested that the name "primary aldosteronism" be applied to it, and recommends that all such patients undergo adrenal surgery."

As far back as 1949, Dr. Conn predicted that one day an adrenal hormone would be discovered, an excess of which would be associated with diseases not yet linked with abnormally functioning adrenal glands.

After the hormone called "aldosterone" had been isolated, Dr. Conn did find a patient exhibiting the ill-effects of too much of the chemical.

MEDICAL EDUCATION

THE House of Delegates of the Michigan State Medical Society, in September, 1954, instructed the Council to arrange a panel discussion on undergraduate medical education for some part of the 1955 annual session. The participants requested were the two Deans: A. C. Furstenberg, M.D., Ann Arbor, Dean of the University of Michigan School of Medicine, and G. H. Scott, Ph.D., Detroit, Dean of Wayne University College of Medicine. The panel discussion was held as requested on Monday, September 26, 1955, at 4 P.M., at the House of Delegates meeting. The discussion was most interesting and instructive. As a result of a question asked during the conference, Dean Furstenberg said Michigan needs a third medical school, and probably by 1975, a fourth.

The Committee to Study the Basic Science Act, in its report, tabulates the number of registrations by the Michigan State Board of Registration in Medicine for ten years up to 1954. There were 1,057 from the University of Michigan, 601 from Wayne University, 2,635 from other states and Canada, and 28 from foreign countries, a total of 4,321. Michigan educated 1,658 doctors of medicine, 38.3 per cent of those registered. We do not have the numbers educated in Michigan who went to other states to practice, but in 1954 there were twenty-two from the University of Michigan and five from Wayne who passed examinations in other states.

The State of Michigan is very definitely not doing its share in the whole program of medical education when we have to import a yearly average of 266 doctors of medicine to care for our people. Our legislature and our people must face the facts, as presented, and make plans for much greater allocations in medical education.

Eight years ago, MSMS President E. F. Sladek, M.D., of Traverse City, invited attention to a wealth of clinical material in Wayne's Eloise Hospital, the largest hospital in the world, which teaching material is completely bypassed. Research buildings could be built for postgraduate use now. The University School of Medicine is probably as large as can be advantageously used. Wayne University College of Medicine still could be expanded, but not enough to fill the gap. We need another medical school, and by another five years that need may be desperate. It will take at least five years to establish another school with hospital facilities and, most important, a functioning faculty.

Michigan, wake up!

ANNUAL MEETING

THE ninetieth annual session of the Michigan State Medical Society will be reported in the regular Secretary's reports to be published in The JOURNAL as soon as compiled by the reporters and official stenographers. That will take some time, but for our members, we present an abridged account.

Sunday, September 25, 1955, was almost completely devoted to the Council Session. Three committees—County Societies, Finance, and Publication, met at 10:00, each one with many items on its agenda. At 12:30, the Council met for luncheon and an extensive program: approving

the proceedings of the Executive Committee during the interim months, unfinished business, nominations for appointment to the State Board of Registration in Medicine (The law provides that the State Medical Society make five nominations for each appointment). Reports of ten committees of the Council and the Society were reviewed and approved. The monthly reports of the officers were considered and the Legal Counsel and Public Relations Counsel reports were studied. Nominations for the Foremost Family Physician Award were screened to three for presentation to the House of Delegates on the Monday and Tuesday, the session of the House of Delegates was held.

Tuesday afternoon, the Membership of Michigan Medical Service met. The session was presided over by Wilfrid Haughey, M.D., in lieu of R. L. Novy, M.D., resigned President. The first business was the nomination of directors. Those made by the nominating committee were received, also one from the floor. Ballots were distributed and, while the tellers were at work, the financial report was received showing the Corporation to be in a strong condition.

The President's report was read by Jay Ketchum also the Executive Director's report. Plenty of time was given for questions from the members. Elections resulted in the selection of the following in alphabetical order: E. I. Carr, M.D., Lansing, for two years, re-elected; Carlton Fox, D.D.S., Detroit, re-elected for three years; B. M. Harris, M.D., Ypsilanti, three years; Wilfrid Haughey, M.D., Battle Creek, re-elected for three years; G. Thomas McKean, M.D., Detroit, three years; E. F. Sladek, M.D., Traverse City, three years; George W. Slagle, M.D., Battle Creek, re-elected three years; W. I. Stoddard, Grand Rapids, re-elected for three years; John M. Wellman, M.D., Lansing, three years; Leonard Woodcock, Detroit, re-elected for three years; Glen W. Fausey, Lansing, and Ronald Yaw, Grand Rapids, representing Michigan Hospital Service, re-elected for three years; and A. Kent Schafer, Traverse City, re-elected for one year.

At the final meeting of MSMS House of Delegates, Tuesday evening, September 27, the following elections occurred: President-Elect, Arch Walls, M.D., Detroit; Councilors, Oliver B. McGillicuddy, M.D., Lansing, to succeed Robert S. Breakey, M.D.; George W. Slagle, M.D., Battle Creek, to succeed himself; D. Bruce Wiley, M.D., Utica to succeed himself; G. T. McKean, M.D., to succeed himself; Arthur E. Schiller, M.D., Detroit, to succeed Arch Walls, M.D. Delegates to the AMA are: John S. DeTar, M.D., Milan, to succeed himself; Wm. A. Hyland, M.D., Grand Rapids, to succeed himself; C. I. Owen, M.D., Detroit, to succeed R. A. Johnson, M.D., Detroit. Alternate Delegates re-elected were: W. W. Babcock, M.D., Detroit; E. F. Sladek, M.D., Traverse City; O. J. Johnson, M.D., Bay City. William Broome, M.D., Detroit, was elected to succeed C. I. Owen, M.D., Detroit. The Speaker, J. E. Livesay, M.D., Flint, and Vice Speaker, K. H. Johnson, M.D., Lansing, were re-elected.

The final and reorganization meeting of the Council on Friday morning, September 30, 1955, selected as Chairman, D. Bruce Wiley, M.D., Utica; Vice Chairman, W. B. Harm, M.D., Detroit; Chairman of County Societies Committee, Wm. M. LeFevre, M.D., Muskegon; Chairman of Finance Committee, Ralph W. Shook, M.D., Kalamazoo, re-elected; and Chairman of Publications Committee, G. B. Saltonstall, M.D., Charlevoix, re-elected.

MEDICAL COSTS

THIS summer, the medical profession has been placed on the bargain table. Our services became a part of the final agreement in the great labor-bargaining procedure which adopted a form of the Guaranteed Annual Wage in the automobile industry. We were not consulted or represented, but almost half of our total business was bartered and signed away.

Five years ago, labor leaders accomplished a settlement with most of industry, recognizing the validity of tying wages to the increased costs of living. The government, which, every three months, publishes an index of the "cost of living," furnished a recognized measure for increases of pay for the whole automobile industry and many others.

Except for a few items, medical costs have remained fairly stationary. Most surgical charges are proportionately the same as they were when our older practitioners entered practice. In a greatly increasing economy we have not been realistic. We should take a tip from our public. Why should we not put an escalator clause in the new contracts Michigan Medical Service is con-

templating to offer to the great automobile companies and their employes? It would be nothing new to labor or industry. The new contracts would demonstrate an awareness of the changing times and of the changing economic world.

We believe our insured persons would concede the fairness of the proposal. We believe the employers might also see the justice of recognizing and actuating a new concept of medical cost accounting.

PRESIDENT-ELECT

ARCH WALLS, M.D., Detroit, was unanimously selected President-elect of the Michigan State Medical Society at the annual session in Grand Rapids, September 28, 1955. He was born in Pontiac, Michigan, in 1895, graduated from Pontiac High School and attended the University of Michigan. His course was interrupted by war service where he was a Lieutenant in the Infantry of the regular army. He returned to school and graduated in medicine at the University of Michigan School of Medicine in 1923. He interned at Harper Hospital and is on the staff of Florence Crittenton Hospital. He played football in high school and one year in college.

Dr. Walls has been a member of the Wayne County Medical Society and always a very active one, serving as Secretary in 1944-45, Trustee in 1949-54, and President in 1951-52. He has been a delegate to the Michigan State Medical Society, chairman of the Post-War Planning Committee; chairman of the Entertainment Committee; chairman of Movie Subcommittee of the Public Relations Committee of the Michigan State Medical Society; chairman, Michigan State Medical Society Public Relations Committee, member of the Council of the Michigan State Medical Society, serving his second term; member of the Advisory Board of Michigan Medical Service, and member of the Board of Directors, now serving his second term.

Dr. Walls has been very active in promoting the interests of the general practitioner and was a leader in organizing the first General Practice Section in the different hospitals. He is one of the Founders of the Academy of General Practice, and is a past president of the American Academy of General Practice of Wayne County. He is a past chairman of the Board of Directors of the American Academy of General Practice.

Dr. Walls is married and has two children.

DELEGATE TO THE AMA

CLARENCE I. OWEN, M.D., of Detroit, was elected Delegate to the AMA at the annual session of the Michigan State Medical Society held in Grand Rapids in September. Dr. Owen is a graduate of Detroit Western High School, taking his premedical education at Ferris Institute and at the University of Michigan.

He received his M.D. degree from Wayne University College of Medicine in Detroit and was for many years on its teaching staff. His residency training in Pathology was taken at Harper Hospital under Plinn F. Morse, M.D. Today he is Attending Pathologist at Grace Hospital in Detroit. He is author and co-author of many medical papers.

Dr. Owen spent five and one half years in service in World War II, as a Colonel in the Medical Corps. He is a diplomate of the American Board of Pathology, member of the Detroit Academy of Medicine, and has been a delegate to the Michigan State Medical Society from Wayne County for many years.

CHAIRMAN OF THE COUNCIL

D. BRUCE WILEY, M.D., Utica, was born in 1904 in Blenheim, Ontario, Canada, graduated from the University of Western Ontario Faculty of Medicine, London, Ontario, in 1928 and was licensed to practice in 1929 in Michigan. He served his internship at St. Joseph Hospital, Mt. Clemens, Michigan, in 1928-1929.

Dr. Wiley was elected councilor of the 15th district in 1950. He has been a member of the Executive Committee of the Council of the Michigan State Medical Society since 1953. He was re-elected Councilor of the 15th district in 1955.

Dr. Wiley is a member of the Macomb County Tuberculosis and Health Association, member of

the Board of Trustees, Michigan Health Council, member of the Board of Directors, Michigan Medical Service and a member of the American Medical Association. He is Past President and Past Secretary of the Macomb County Medical Society and has been a delegate from Macomb County to the House of Delegates of the Michigan State Medical Society for ten years. He is Michigan representative and a member of the Executive Committee of the National Conference of County Medical Societies Officers of the American Medical Association, 1947-1950.

He is Past President and Past Secretary of the Utica Rotary Club. He is a member of the active staff of St. Joseph Hospital, Mt. Clemens, a general practitioner with particular interest in obstetrics and pediatrics.

NEW COUNCILORS

OLIVER B. McGILLICUDDY, M.D., the newly elected councilor from the Second District, is the son of a doctor of medicine and surgeon in Lansing. He also has a brother practicing in Lansing. Dr. Oliver McGillicuddy is a well-known ear, nose and throat surgeon and has practiced in the capital city for twenty-four years.

He was born in Shepardsville, Michigan, May 21, 1902, and graduated from the Ovid High School in 1919, from the Literary Department of the University of Michigan and the Medical School in 1925.

He served his junior internship at Harper Hospital in Detroit, 1925-1926, and was resident and instructor in Otolaryngology in 1926-1930. He was associated with T. J. Carmody, M.D., Danville, Illinois, from 1930 to 1932.

Dr. McGillicuddy started the practice of Otolaryngology in Lansing in 1932. Since that time, he has been chief of ear, nose and throat at Edward Sparrow and St. Lawrence Hospitals in Lansing.

He is a member of the Ingham County Medical Society, the Michigan State Medical Society, the American Medical Association, American Triological Society, Southern Michigan Triological Society, Detroit Otolaryngological Society, American Academy of Ophthalmology and Otolaryngology, Lansing Country Club, Lansing City Club, Lansing Automobile Club, Rotary, and the People's Church. He has authored articles in the *Annals* and *Archives of Otolaryngology.*

He is a Past President of the Ingham County Medical Society, a Delegate to the Michigan State Medical Society, former President of Southern Michigan Triological Society, Vice Chairman, Michigan State Medical Society Legislative Committee, member of the Michigan State Medical Society Public Relations Committee, diplomate of the Board of Otolaryngology, 1929, and has been Vice President of the Ingham County Community Chest and President of the Lansing Country Club.

ARTHUR E. SCHILLER, M.D., Detroit, was born in Bay City in 1892. He graduated from the Detroit College of Medicine and Surgery in 1914 with the degree of M.D. He interned at Grace Hospital and has done postgraduate work in dermatology at the University of Michigan, 1919-1921. He is Associate Professor of Dermatology, Wayne University College of Medicine, Attending Dermatologist at Grace Hospital where he is Chief of Department, at Receiving Hospital and at Sinai Hospital. He is married and has two children and five grandchildren.

Dr. Schiller is Past President of the Detroit Dermatological Society, Past President of the Central States Dermatological Society, a Fellow of the American Academy of Dermatology, a Fellow of the American Medical Association and Past Vice President of its Dermatological Section. He is a member of the Michigan State Medical Society and Past President of the Dermatological Section; chairman, Radio-Television Committee; member, Public Relations Committee; now Councilor, First District, Wayne County; Delegate from Wayne County Medical Society; chairman, Reference Committee on Executive Session, and a member of the Wayne County Medical Society where he has been on the Council, chairman of the Ethics Committee, member of Physicians Hospitals Committee, member, Public Relations Committee, Educational Liaison Committee, and Prepaid Medical Plan Committee.

He is also a member of the United Community Service Committee, Franklin Hills Country Club, and Excelsior Club.

Lynn A. Ferguson, M. D.

He Jumped 18 Miles to Success

One of the traditional prerequisites of men of achievement is to be born in a small town. So it was with Lynn Adelbert Ferguson, M.D., who was born, May 4, 1891, in Sparta, Michigan, a country town about 18 miles northwest of Grand Rapids. This small midwestern town offered countless opportunities to occupy and entertain a curious, eager, and industrious boy.

Lynn's Scotch parents were hard-working and thrifty and they saw to it that he had ample opportunity to work, as well as to learn and to play. He worked at the usual jobs boys find during summer vacations and acquired some experience in handling livestock. Also he was fortunate enough to acquire considerable skill as a mechanic and toolmaker's apprentice by working with one of the craftsmen in Sparta. The habits of hard work and application to various tasks left their mark on the boy, and have been shown by Lynn Ferguson to this day.

It was not all work, of course. Lynn developed a great liking for baseball as a boy and he likes to recall that he was a "pretty good shortstop" around Sparta. Like many boys, he entertained visions of becoming a professional ballplayer, but by the time he graduated from the Sparta High School in 1910, dreams of college and of becoming a doctor filled his mind.

His parents encouraged him and offered what little help they could. However, he realized that if he wanted to go to college and medical school, he would have to work his way to a large extent. He worked for a year and, then, in the fall of 1911, entered the University of Michigan in the combined literary-medical curriculum. Part-time jobs at waiting on table, washing dishes, stoking furnaces and carrying out the inevitable ashes were eagerly accepted. When he had completed the first years of the medical course, he was delighted to accept the opportunity to become an assistant in the Department of Physiology. This assignment necessitated attending two summer school sessions, affording him the chance to acquire additional credits in physiology and embryology. He received a B.S. degree in 1915 and the M.D. degree in 1917, and he recalls that it was hard work but that he thoroughly enjoyed it. He believes he got more out of his education because he worked his way than if he had not.

Like so many industrious people, Dr. Ferguson's ability to get work done was not unnoticed by his classmates, and as a freshman in the Medical School he acquired the job of Secretary of the Class of 1917. He must have been an exceptional secretary—or perhaps no one else would touch the job! At any rate, he continued in that position throughout his years in Medical School, and as far as is known is still the Secretary of the Class of 1917! He also became a member of the Alpha Kappa Kappa Medical Fraternity and today is the Michigan State Secretary of Alpha Kappa Kappa, a position he has been unable to elude for the last twenty years—to the consternation, we might add, of *his* secretary!

The young graduate served as resident in obstetrics and gynecology at the Providence Hospital, Washington, D. C. He then returned to Michigan and entered the practice of proctology in Grand Rapids. After a few years of practice in a clinic well known in its day, he and his brother, Ward S.

Ferguson, M.D., with James C. Droste, M.D., resigned and founded a new clinic and hospital in Grand Rapids, bearing the names of the three founders and devoted to the specialty of proctology.

Although the new clinic demanded much of his time and energy, Dr. Ferguson was active in the general hospitals in Grand Rapids, and for a period of about eighteen years he served St. Mary's Hospital in various capacities, including Chief of Staff, Vice Chief of Staff, and Chairman of the Medical Board. He also devoted some of his efforts and energy to the Boy Scouts, to the Lions Club, to the University of Michigan Alumni Association, of which he is a past director, and to the Masonic Order.

Dr. Lynn's interests have not been limited to his profession alone. In the fall of 1916, at the beginning of his senior year in the Medical School, he married Miss Alice T. Layton. His four children, two boys and two girls, have presented him with eleven grandchildren. However, since the children have established their homes outside Grand Rapids, Dr. Lynn maintains a fairly high degree of activity at his home with a pair of large and handsome dogs. Butch and Flame are boxers, and Dr. Lynn feels that it is a pity, somehow, that Butch can't talk and write, because he is sure that Butch is at least as smart as some people!

In 1940, Dr. Ferguson suffered a coronary attack. Since that time he has limited his activities —or so he says! He has maintained a keen interest in the Association of American Physicians and Surgeons, and has served as a Michigan delegate to that body. Over the years, the field of colon surgery and the study of gastroenterology have interested him more and more. He has been greatly interested and active in the College of Gastroenterology, of which he is a founder and of which he has the honor of serving as President this year.

Dr. Ferguson would like to have more time for fishing and boating. He would like to have time to study electronics and to tinker with his workshop and tools. However, those who know him are sure that he is happiest when he is busiest. And, whenever there is an opportunity to develop the specialty of proctology, Dr. Lynn A. Ferguson, conscientious physician that he is, will, somehow, take the time to do whatever he can.

—Howard G. Benjamin, M.D.

SOME MEDICAL ASPECTS OF EXOPHTHALMOS

(Continued from Page 1328)

increased to 2½ grains daily. A recent letter reported apparent good progress with marked improvement of the eye condition.

Summary

1. A brief review of certain backgrounds in exophthalmos is given.

2. Proptosis is emphasized as only one part of the local exophthalmic picture.

3. The presence of "mixed gland dysthyroidism" is offered as a subgroup of thyroid dysfunction along with thyrotoxicosis and hypothyroidism in the consideration of endocrine etiology.

4. A precise surface scanning technique in radioactive iodine tracer (I^{131}) studies seems to furnish the only diagnostic answer for certain patients in whom the clinical spectrum basal metabolic rate, blood protein bound iodine and cholesterol are normal or equivocal.

5. Clinical and laboratory results are detailed in two patients (of a group of twenty-five similarly studied and treated) with the employment of I^{131}, therapeutically. In one, 16 MC in three divided doses was given; in the other, a single 10 MC dose. In both, a resultant myxedema was corrected with adequate amounts of thyroid extract, and in each very satisfactory ophthalmic, clinical and laboratory improvement took place.

References

1. Graves, R. J.: London M. & S. J., 7:516-517, 1835.
2. Reynolds, L.; Corrigan, K. E., and Hayden, H. S.: Diagnostic use of radioactive isotopes. Am. J. Roentgenol., 68:421-434 (Sept.) 1952.

"Today"--With Michigan Health Council

"Concern yourself with but today, grasp it—and teach it to obey . . ."

—Anon.

By "grasping the todays" during the past six-and-one-half years, Michigan Health Council has developed a comprehensive program unmatched in scope and breadth by any other state.

Its nineteen current projects encompass health activities involving rural and urban people and range from weekly television presentations to M.D. Placement activities.

Basic Policy Maintained

In the development of the present expanded activities program, the Council has held fast to its basic objective of further expansion of the Community Health Council idea. Before any new project can be accepted, it is analyzed and considered in the light of its adaptability to the Community Health Council program. This in itself, could account, in part at least, for the constant increase in the number of Community Health Councils which have accepted Associate Membership in MHC. It also could account for the slow, cautious increase in the number of projects during recent years.

- **M.D. Placement Program**
- **Medical Assistants Placement**
- **M.H.C. Weekly Television Series**
- **Regional Health Council Conferences**
- **Kinescope Production**
- **M.H.C. Awards**
- **M.H.C. Slide Series**
- **Membership Enrollment Campaign**
- **Annual Michigan Rural Health Conference**
- **C.H.C. Organizational Activities**
- **Michigan Health Council Bulletin**
- **Community Health Council News**
- **Michigan Health Council Directory**
- **Michigan Health Council Film Production**
- **Medical Associates Procurement**
- **Periodic Health Appraisal**
- **Film Information Service**
- **Clearing House on Health Questions**
- **Community Health Council Service Bureau**

As a result of this deliberate policy, MHC's projects have proved popular with other health groups and in certain instances, such as the M.D. Placement Program, have been successful in bringing many groups together in a mutual effort.

Community Health Councils Increase

Evidence of the popularity and the acceptance of the Community Health Council idea is obvious in the constantly increasing number being formed annually. During the past twelve months, eighteen community groups were formed in various areas of the state. A total of sixty-six Community Health Councils now hold Associate Membership in Michigan Health Council.

Advisory Board Formed

Pursuing the directive provided in the By-Laws, the Board of Trustees urged the creation of a Community Health Council Advisory Board. Elected as the first chairman of the Community Health Council Advisory Board, Sidney Chapin, M.D., Dearborn, has developed a working organization which will hold its second annual meeting in Kalamazoo, in January, 1956. Once functioning, this Board will be in a position to provide valuable information from the community groups.

Other elected officers serving the Advisory Board are Herbert Ellis, Detroit, Vice-chairman, and Verna Dolbee, Kalamazoo, Secretary.

Health Publications Expanded

For the sixth consecutive year, circulation of MHC publications has been increased. The printed *Bulletin and Inspection News* now reaches 2300 readers. New features include regular reports of MHC television productions and listings of M.D. placements in Michigan.

Planned for future issues is a series entitled "Facing the Facts," in which interesting medical and health facts will be featured.

Now in production is an attractive folder entitled, "The Man Who Wasn't There," featuring the M.D. Placement Service, its purpose and objectives.

Medical Assistants Placement Pilot Study Completed

Working jointly with the Michigan State Association of Medical Assistants and the Ingham

County Medical Society, Michigan Health Council conducted an intensive pilot study in Medical Assistants Placement.

The study, completed on October 1, 1955, will provide valuable information for any county or community interested or considering the setting up of such a service.

Results now are being tabulated, and a report is being completed. Copies of the report will be made available on request, when finished.

Regional Health Council Conference Staged

Working with representatives of the five counties surrounding Grand Traverse, Michigan Health Council planned and staged its Second Regional Health Council Conference in Traverse City on October 27, 1955.

The Conference, featuring workshop sessions on the organizing and functioning of a Community Health Council, brought in qualified resource persons from all areas of the state. From the interest displayed in the area, it is logical that many new community groups may be stimulated and new Community Health Councils formed.

M.D. Placement Project Enjoys Good Year

Constant expansion of the Michigan Health Council M.D. Placement Program has produced gratifying results. To date, the service has been involved in 151 placements throughout the state, the majority of these being in the smaller communities of Michigan.

The service has registered more than 1200 doctors of medicine to date, and 481 are listed with the project at this time.

During the past few months, a system was devised to place the service in contact with every Michigan man now enrolled in medical school in any other state. These men will be contacted regularly and urged to consider Michigan opportunities when they have completed their training.

A system has been devised to contact all graduates of Michigan medical schools during their intern year, offering them placement information on Michigan opportunities.

The project, guided by the Committee on Rural Medical Service of MSMS, has produced unusual results during the past two years.

Through the joint financial assistance of MSMS and The Upjohn Company of Kalamazoo, its future progress will be expanded even further.

Working with a limited number of staff people, Michigan Health Council has been able to develop an enviable program in heath activities, only through the co-operation of Michigan doctors. Working closely with the program on both the local and the state level, Michigan's men of medicine provide the necessary ingredients to assure even greater progress in the future. By "concerning ourselves with but today," we shall constantly aim toward that objective.

M.D. PLACEMENT

The M.D. Placement activities have been expanded constantly during the past year. This progress is made possible through the joint financial sponsorship of Michigan State Medical Society and The Upjohn Company, of Kalamazoo, Michigan.

The service registered more than 1200 M.D.s to date and 481 now are on record with us for future placement when their training is completed.

Other figures, showing steady growth, are as follows:

NUMBER OPENINGS REGISTERED TO DATE	285
NUMBER OPENINGS NOW REGISTERED	134
M.D.'s PLACED TO DATE:	
DIRECT PLACEMENTS	64
INDIRECT PLACEMENTS	87
TOTAL PLACEMENTS	151

M.H.C. TELEVISION

★ **"Court of Health"**

WJBK-TV—Detroit (Sundays)

Weekly shows produced to date	159
Number M.D.s who have appeared	129
Number different health subjects	57

★ **"Report in Health"**

WKAR-TV—E. Lansing (Thursday evening)

Weekly shows produced to date	10
Number of M.D.s who have appeared	5
Number different health subjects	10

★ **Kinescope**

During the coming months, a series of six 15-minute kinescope films will be produced on the "REPORT IN HEALTH" series.

★ All production details are handled at M.H.C. offices and all expenses are borne by M.H.C. general fund.

Postgraduate Continuation Courses

Wayne University College of Medicine

December 5, 1955—March 10, 1956

These courses are open to all qualified persons.

Veterans receiving benefits under the G.I. Bill should contact Dr. Arthur Johnson, Veterans Administrator at Wayne University, 666 Student Center Building, 5050 Cass, Detroit, Michigan.

Registration for these courses should be made in the office of Postgraduate Medical Education at the College of Medicine, 1401 Rivard, Detroit, Michigan, **before December 2, 1955.**

Title of Course	Place	Time	Fee
	MICROBIOLOGY		
Seminar	College of Medicine	Thur. 3-4	$15.00
	PHYSIOLOGICAL CHEMISTRY		
Comparative Physiological Chemistry	College of Medicine	Tues. 1:30-2:30	$15.00
Intermediary Metabolism	College of Medicine	Tues. 3-4	$15.00
Physical Biochemistry	College of Medicine	Mon. 9-10, Thur. 2-5	$30.00
Seminar	College of Medicine	Wed. 2:30-3:30	$15.00
	PHYSIOLOGY AND PHARMACOLOGY		
General Endocrinology	College of Medicine	Mon. 3-5, Thur. 3-4	$30.00
Blood (Two Quarters)	College of Medicine	Wed. 3-5	$30.00
Seminar	College of Medicine	Tues. 4-5	$15.00
	PATHOLOGY		
Path. of Parasitic Diseases (Minimum of six)	College of Medicine	Tues. 2:30-4:30	$50.00
Advanced Hematology (Limit 5)	College of Medicine	Mon. 1-5	$50.00
	DERMATOLOGY		
Seminar in Dermatology	Receiving Hospital	Wed. 10-12	$15.00
Dermopathology Seminar	Receiving Hospital	Wed. 1-2	$15.00
	INTERNAL MEDICINE		
Medical Conference	Receiving Hospital 243 Farwell Annex	Wed. 5-6	$15.00
Gastroenterological Clinic	Receiving Hospital 243 Farwell Annex	Sat. 8-9 a.m.	$15.00
Medical X-Ray Conference	Receiving Hospital 243 Farwell Annex	1st, 2nd, 3rd, 5th Tues. 11-12	$15.00
Medical Pathologic Conference	Receiving Hospital 243 Farwell Annex	Wed. 11-12	$15.00
	ONCOLOGY		
Cancer Detection	Yates Clinic	Wed. 3-5	$25.00
	PSYCHIATRY		
Psychosomatic Conference	201 Farwell Annex Receiving Hospital	Tues. 11-12	$15.00
Psychoanalytic Psychiatry	201 Farwell Annex Receiving Hospital	Mon. 11-12	$15.00
	SURGERY		
Seminar	645 Mullett. 4th Fl.	Mon. 4-5	$15.00

Success Crowns Ninetieth Annual Session

When the Ninetieth Annual Session of the Michigan State Medical Society closed on September 30, it was immediately tabbed by many of the 3,585 registrants as the most successful MSMS meeting ever held in Grand Rapids. Two weeks later, after time to reflect upon the values gained at the 1955 session, they held the same opinion, and there were few who would argue the point.

Although attendance was 211 greater than the record-breaking (for Grand Rapids) 1953 Annual Session, "bigness" was not the standard used to measure success. The session was well-planned and well-balanced, and the scientific program brought more compliments from MSMS members than any in recent years, particularly for its practical applications in the daily work of the M.D.

MSMS is accustomed to widespread co-operation from its members and from the members of the host county society—in this instance the Kent County Medical Society—in planning and operating its two major scientific meetings each year, but seldom, if ever before, had so many members taken a direct interest and participated so actively as they did at the 1955 Annual Session. That was the consensus among MSMS officers and others who have watched annual sessions grow through the years.

Heading the committee responsible for general arrangements for the Ninetieth Annual Session were Co-Chairman C. Allen Payne, M.D., and Felix S. Alfenito, M.D., both of Grand Rapids.

MSMS activities and the medical advances which were unfolded before the three-day scientific session were headline news throughout Michigan all during the week, as were the activities of the seventeen related groups which sponsored various concurrent events. Press, radio, and television representatives gave full coverage, and once again MSMS speakers appeared before a number of Grand Rapids service clubs. A new feature for 1955 was a daily broadcast direct from the mezzanine of the Pantlind Hotel, featuring interviews and Annual Session highlights as the closing five minutes of a popular dinner-hour news program on WOOD.

Adding to emphasis on medical affairs during the session was a special exhibit at Grand Rapids Public Museum, sponsored by the Kent County Medical Society, illustrating the great progress in Medicine during the ninety years of MSMS' existence.

Honors as "Michigan's Foremost Family Physician" for the year went to Walter H. Winchester, M.D., of Flint. Several other special awards were announced or presented, in recognition of outstanding service to Health and Medicine. (See "PR Report" in this issue, and pictorial record accompanying this article.)

Successful as it may have been, however, the Ninetieth Annual Session is now a part of MSMS history, and those who plan such events already are deeply involved with the future. The foundation was laid long ago for a "greater" Michigan Clinical Institute next March 7-8-9, and most of the preliminaries are well under way for the Ninety-first Annual Session next September 26-27-28. Both meetings will be held in Detroit.

NEW ATTENDANCE RECORD (FOR GRAND RAPIDS)

Breakdown of the registration at the 1955 Annual Session, which topped the previous record of 3,266 in Grand Rapids in 1953, follows:

Doctors of Medicine	1,671
Guests	559
Exhibitors	597
	2,827
Woman's Auxiliary members	366
Medical Assistants members	392
Grand Total	3,585

Officers' Night Honors

WILLIAM S. JONES, M.D., officially became MSMS President when his badge of office was tendered by Retiring President Robert H. Baker, M.D., Pontiac, before the crowd at the traditional Officers' Night program.

ARCH WALLS, M.D. (left), Detroit, made his first official appearance as MSMS President-Elect on the platform at Officers' Night. He was seated with President Jones and MSMS Secretary L. Fernald Foster, M.D., Bay City (right).

PRESIDENT JONES' first official act was to honor a former fellow-townsman, Jean Worth, Editor of the *Escanaba Press*, with an MSMS scroll commending him for his "distinguished contribution to public understanding of Medicine and Health."

ONE OF President Baker's final duties was to present a handsome silver wall plaque to Wilfrid Haughey, M.D., Battle Creek, veteran Editor of THE JOURNAL MSMS, as a token of appreciation for many years of service.

OFFICERS' NIGHT traditionally is climaxed by the presentation of the Biddle Lecture, principal non-medical address of each Annual Session. Charles L. Anspach, President of Central Michigan College of Education, Mount Pleasant, presented the 1955 Biddle Lecture, an inspirational speech spiced with generous amounts of humor.

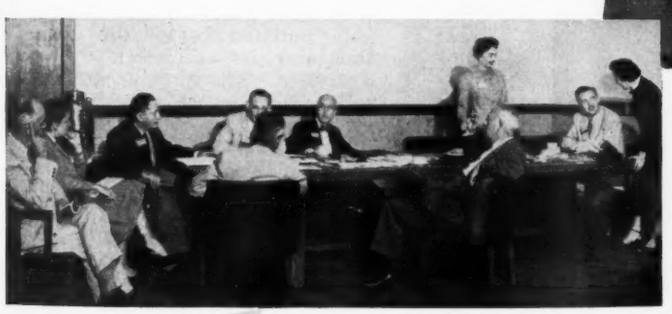
JAMES GERITY, JR., Adrian, was honored for his distinguished service in public education in medical advances through the medium of television. He is President of WNEM-TV, Bay City, as well as radio stations WABJ, Adrian, and WPON, Pontiac. Mr. Gerity also heads an Adrian manufacturing firm.

Ninetieth Annual Session - MSMS

THE BASIC FOUNDATION for any MSMS Annual Session is typified in these views at Grand Rapids. Below is the crowded lecture hall, where lecturers and clinicians shared their knowledge with every MSMS member. Below that is the busy exhibition hall where 133 technical and scientific exhibits provided MSMS members another means for firsthand information about what's new for the M.D.

ABOVE is a scene at the platform during a House of Delegates recess as delegates check upcoming details with Speaker Jackson E. Livesay, M.D. (standing left), Miss Helen Schulte, MSMS Executive Assistant, and Secretary L. Fernald Foster, M.D. (seated, left center).

NERVE CENTER for the corps of newspaper, radio, and television reporters covering the 90th Annual Session was the bustling Press Room. Pictured are science writers from the three Detroit dailies, a speaker's "ubiquitous host," a former MSMS President, and members of the Press Committee and Public Relations Staff. In the center is Paul W. Kniskern, M.D., Grand Rapids, Scientific Press Chairman.



AWARD-WINNING reporter Jean Pearson (right) spent the full week in Grand Rapids digging out the latest news in medical progress from the mass of information presented at the Annual Session. Mrs. Pearson, with her newspaper, the *Detroit Free Press*, will share the MSMS Award for Excellence in Medical Reporting to be presented at the 1956 Michigan Clinical Institute. She is pictured interviewing Harold W. Jacox, M.D.

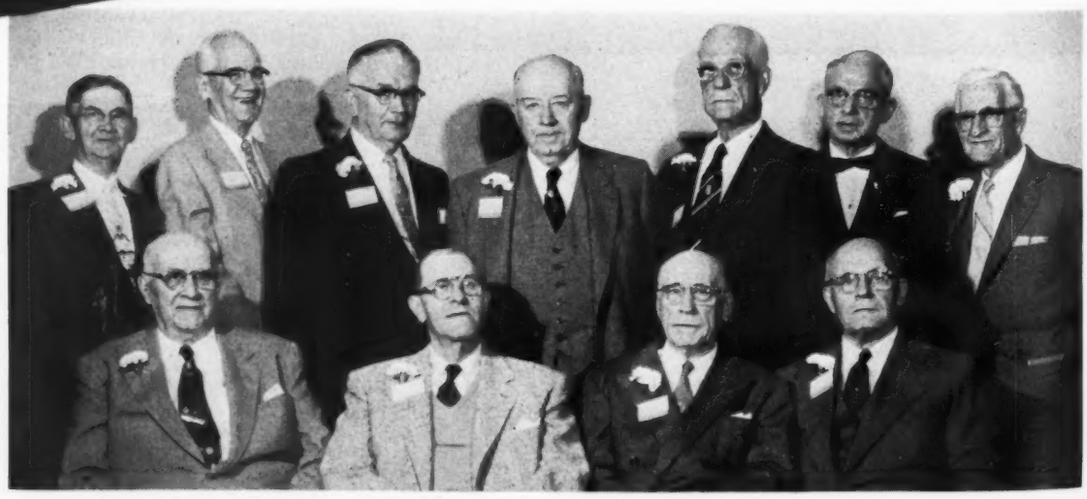
WALTER H. WINCHESTER, M.D., eighty-year-old Flint physician chosen by the House of Delegates as "Michigan's Foremost Family Physician of 1955," endeared himself to convention-goers with his wit, philosophy, and enthusiasm. He was congratulated warmly (above) by his daughter, Clarice, of Flint, and was honored at a dinner by his Genesee County colleagues, where he chatted (at right) with Jackson E. Livesay, M.D. (left), Speaker of the MSMS House of Delegates, and Harold H. Hiscock, M.D. (center), MSMS Councilor, both of Flint.

Ninetieth Annual Session - MSMS

THE UPPER PENINSULA was especially proud of the induction of William S. Jones, M.D. (center), Menominee, as MSMS President. MSMS Councilors from Upper Michigan, T. P. Wickliffe, M.D. (left), Calumet, and B. T. Montgomery, M.D. (right), Sault Ste. Marie, spearheaded plans for a special reception and dinner honoring Dr. Jones.

THE ANNUAL BEAUMONT LECTURE was presented by Garnet W. Ault, M.D. (left), Washington, D. C. proctologist. He received the traditional scroll from Otto O. Beck, M.D., Birmingham, Chairman, MSMS Beaumont Memorial Committee.

MEDICAL EDUCATION in Michigan, its current status and future aims, was ably outlined before the House of Delegates in an informative panel discussion. Chatting at the rostrum are the deans of Michigan's two medical schools, who were the featured speakers, Gordon H. Scott, Ph.D., Wayne University, and A. C. Furstenberg, M.D., University of Michigan.



900 YEARS of medical service to the people of Michigan were represented among the eighteen MSMS members inducted into the "50-Year Club" in Officers' Night ceremonies. Eleven were present to accept the honor. (See page 1382 for list of names.)

Ninetieth Annual Session - MSMS

FRONT LINE WORKERS in behalf of Medicine—members of the Michigan State Medical Assistants Society—held their Annual Session concurrently with MSMS. Three leaders posed at luncheon, left to right: Mrs. Charlotte Ash, Kalamazoo, Immediate Past President; Miss Hallie Cummins, Caro, President, and Miss Doris Jarrad, Lansing, President-Elect. Almost 60 per cent of the 700 members turned out for the two-day MSMAS meeting.

LOOKING TO THE FUTURE, nearly 400 members of the Woman's Auxiliary to MSMS conducted one of their busiest annual meetings during the three-day 90th Annual Session. Seated at the banquet table are Mrs. Delbert M. MacGregor, Flint, 1955-56 President; Mrs. Mason G. Lawson, Little Rock, Ark., President of the AMA Woman's Auxiliary, and Mrs. F. Milford, Ypsilanti, Immediate Past President. Standing: Mrs. A. C. Stander, Saginaw, President-Elect, and Mrs. C. Allen Payne, Grand Rapids, First Vice President.

THE COUNCIL OF MSMS played host to guests of honor at a formal dinner preceding Officers Night ceremonies. At the head table, left to right, were: James Gerity, Jr., Adrian; Charles L. Anspach, Ph.D., Mount Pleasant, Biddle Lecturer; Robert H. Baker, M.D., Retiring President; Chairman William Bromme, M.D.; William S. Jones, M.D., now President, and Jean Worth, Escanaba. In right foreground is Earl I. Carr, M.D., Lansing, President of the Michigan Foundation for Medical and Health Education.

SILVER ANNIVERSARY of the founding, in Michigan, of the Medical Exhibitors Association, was observed at this year's Gridiron Dinner. S. A. Montgomery (left), Fremont, accepted a sterling silver plaque from President Jones, a token of appreciation for twenty-five years of service by MEA and its members to the medical profession in Michigan.

PRESIDENTS AND SECRETARIES of two organizations which have been friends for twenty-five years were photographed together before the Silver Anniversary Gridiron Dinner honoring the Medical Exhibitors Association. Seated are: MSMS President William S. Jones, M.D., and MEA President S. A. Montgomery, of Gerber Products, Fremont. Standing are: MEA Secretary R. T., Osterlund, Johnson & Johnson, New Brunswick, N. J.; Mrs. Helen L. Breining, Philadelphia, Penn., MEA Assistant Secretary, and MSMS Secretary L. Fernald Foster, M.D., Bay City.

MSMS NINETIETH ANNUAL SESSION—GRAND RAPIDS
SCHEDULE OF PUBLIC PRESENTATIONS

SERVICE CLUBS

Date and Club	Speaker	Subject
Monday, September 26		
Grandville Rotary Club	Harry B. Zemmer, M.D.	"Newer Advances in Medicine and their Economic Value to the Patient"
Lee Rotary Club	G. B. Saltonstall, M.D.	"Salk Vaccine"
Tuesday, September 27		
Kiwanis Club of Grand Rapids—North	Gordon H. Scott, Ph.D.	"More Doctors for Michigan"
Second Congregational Church		
Grand Rapids Lions Club	William Bromme, M.D.	"The Tumult and the Shouting Dies" (polio vaccine)
Wyoming Park Rotary Club	D. Bruce Wiley, M.D.	"Keeping Up with Medical Progress"
Southkent Kiwanis Club	George W. Slagle, M.D.	"Health is Your Business"
Wednesday, September 28		
Kiwanis Club of Grand Rapids—South	W. M. LeFevre, M.D.	"Do *You* Have Diabetes?"
Kiwanis Club of Grand Rapids—West	Robert H. Baker, M.D.	"What Became of the General Practitioner?"
Optimist Club of Grand Rapids	H. Marvin Pollard, M.D.	"The Problem of Medical Research"

RADIO STATIONS

Date & Station	Participants	Program
Saturday, September 24		
WOOD-TV	Ruth Herrick, M.D.	"This Amazing World" (Grand Rapids Public Museum)
Sunday, September 25		
WOOD-TV	R. H. Baker, M.D.; L. F. Foster, M.D.; W. S. Jones, M.D.; C. A. Payne, M.D.; W. C. Beets, M.D.; S. L. Moleski, M.D.; H. G. Benjamin, M.D.	"Health of Our City" (Grand Rapids Health Department)
WGRD	Paul W. Kniskern, M.D.	News interview
Monday, September 26		
WJEF	L. Paul Ralph, M.D.	Interview—Margaret Curley
WOOD	H. W. Brenneman & W. H. Winchester, M.D.	News roundup—Pantlind Lobby
Tuesday, September 27		
WJEF	Frederick S. Gillett, M.D.	Interview—Margaret Curley
WLAV	Isla G. DePree, M.D.	Interview—Edith Klaeser
WOOD	H. W. Brenneman & W. S. Jones, M.D.	News roundup—Pantlind Lobby
WFDF, Flint	W. H. Winchester, M.D.	Interview (tape recorded in Grand Rapids)
Wednesday, September 28		
WOOD	H. W. Brenneman & Arch Walls, M.D.	News roundup—Pantlind Lobby
Thursday, September 29		
WJEF	C. A. Payne, M.D., & F. S. Alfenito, M.D.	"Know Your City"
WOOD	H. W. Brenneman & L. F. Foster, M.D.	News roundup—Pantlind Lobby
Friday, September 30		
WOOD	H. W. Brenneman & M.D.s selected at random	News roundup—Pantlind Lobby

What They Said About the 1955 MSMS Annual Session

Governor G. Mennen Williams, Michigan (guest speaker): "It was a real pleasure to have the opportunity to be with you at the 90th Annual Session of the Michigan State Medical Society. I enjoyed very much being present for the morning session, and I trust your meeting was most successful and enjoyable. With every good wish."

Charles L. Anspach, Ph.D., Mt. Pleasant (Biddle Lecturer): "I want you to know how much I appreciate the many courtesies shown me by the Society at the Grand Rapids conference. It was a great experience for me. Thanks for the honor which is mine."

Robert R. Kierland, M.D., Rochester, Minnesota (guest speaker): "It was a grand experience for me to be with your group and may I also put in a good word for Dr. and Mrs. Kornelius Van Goor (our ubiquitous hosts). They were most cordial and did everything possible to make our stay pleasant. May I offer, through you, thanks to your Society for all the kind things done for us. The basket of fruit and the corsage for Mrs. Kierland were just a few of the many nice things. I only hope that what I had to offer proved worthy."

Franklin H. Top, M.D., Iowa City, Iowa (guest speaker): "The courtesy extended Mrs. Top and myself at the meeting was remarkable and sets a high standard for other organizations to meet or follow. We appreciated your thoughtfulness and the basket of fruit very much and thank you also for the corsage Mrs. Top received. Coming back to Michigan is indeed a pleasant experience."

Garnet W. Ault, M.D., Washington, D. C. (guest speaker): "Please convey my thanks and sincere appreciation to the officers of the Michigan State Medical Society and of the Section on Gastroenterology and Proctology for their generous hospitality at the 90th Annual Session.

"It was a distinct honor and pleasure to be asked to give the Beaumont Lecture before the Assembly and to present a paper to the meeting of the Section.

"You have a most active State Society, and it was an educational privilege for me to listen to the other speakers. A renewal of old friendships with former classmates and colleagues made my stay unusually enjoyable. With best wishes for continued success in a job you have done so well."

R. Russell Best, M.D., Omaha, Nebraska (guest speaker): "It is my impression that you have one of the best organized state medical annual sessions that I have had the privilege of attending. Not only did you have a good attendance but everything seemed to run so smoothly. Also I learned a few things which I am going to transmit to our own state society. Please extend my thanks to Mr. Burns who was so kind to me.

"Again many thanks to you, and kindest regards."

Arthur M. Master, M.D., New York, New York (guest speaker): "I cannot begin to thank the officials and the members of your Society, particularly Dr. Gordon Balyeat, for the sincere hospitality shown me and the kind consideration I received during my visit to Michigan. To cap it all, the basket of fruit was most attractive. I had very comfortable rooms. Gordon Balyeat was with me from the moment I arrived, late Thursday night, until the time I left for New York. It was extremely wonderful to have such a fine internist, a fine doctor, and shipmate of World War II as my host.

"Thank you and your Society for a most enjoyable and memorable stay."

Harold Jacox, M.D., New York, New York (guest speaker): "Your organization is tremendous in arranging all the details for your guest speakers at the annual meeting. My ubiquitous host was Dr. D. P. Moore of Grand Rapids and he was perfect.

"I had a marvelous time meeting friends and classmates I had not seen for more than twenty-five years. Mr. Corson of the Pantlind Hotel made my stay there most comfortable. Please thank Dr. Baker for including me in his program and with much appreciation to you."

Richard L. Sutton, Jr., M.D., Kansas City, Missouri (guest speaker): "I wish you to know how very much I appreciate the courtesy extended to me, and the minute attention to details that I observed, when I had the pleasure of being your guest on September 30.

"Everything ran like clockwork. The men with whom I was closely associated were most amiable and considerate. Dr. Bill Kruse is indeed a fine host. I feel that I can now count him among my close personal friends."

F. Lee Stone, M.D., Chicago (President-Elect, Illinois State Medical Society): "When I received your letter of invitation to the Annual Session of the Michigan State Medical Society in Grand Rapids this year, I did not expect the enthusiastic reception that I received, not only from Ralph Shook and Wilfrid Haughey, but your entire official family. It was a revelation to me to meet so many of your group of officers, councillors, and House of Delegates. I can only say that I had a wonderful time with a wonderful group of fine men."

S. A. Cosgrove, M.D., Jersey City, N. J. (guest speaker): "Permit me to say how greatly I enjoyed my visit to your organization at its Annual Session in Grand Rapids and my deep appreciation of the courtesy of your officers and members, very particularly of the fine care which Dr. Jarvis took of me during the entire period of my visit with you in Michigan."

Willard R. Cooke, M.D., Galveston, Texas (guest speaker): "Let me express my appreciation of the invitation to address your Society and of the many kindnesses shown me while in Grand Rapids."

Ralph Colp, M.D., New York City (guest speaker): "May I thank you for the kind hospitality extended me

while in Grand Rapids. I had a most delightful time and shall look back upon it with a great deal of pleasure. My deep appreciation and kindest personal regards."

A. Carlton Ernstene, M.D., Cleveland, Ohio (guest speaker): "I enjoyed my visit to Grand Rapids very much, and appreciated the opportunity to speak before the Michigan State Medical Society."

Stanley O. Hoerr, M.D., Cleveland, Ohio (guest speaker): "I wish to say again that it was a most enjoyable meeting."

Maurice Levine, M.D., Cincinnati, Ohio (guest speaker): "I enjoyed coming and I am very appreciative indeed of the excellent way in which my trip was handled by your Society."

L. S. McGoogan, M.D., Omaha, Nebraska (guest speaker): "I would like to thank the Michigan State Medical Society through you for their invitation to speak at the recent meeting in Grand Rapids and for their marvelous hospitality and kindness during the meeting. It was indeed a pleasure to come to Grand Rapids and to talk before your group, and I sincerely hope that sometime I may be able to return."

Ovid O. Meyer, M.D., Madison, Wisconsin (guest speaker): "I had a very fine time at the meeting, and I have never had a better sponsor than Dr. Ralph Fitts. His courtesy and kindness were unsurpassed. I appreciate very much having been invited to take part in the very fine meeting."

Waldo E. Nelson, M.D., Philadelphia, Pa. (guest speaker): "To the officers of the Society, I would like to express my appreciation for being honored twice within a comparatively short time in being asked to speak before your Society. I am, of course, particularly indebted to Dr. J. E. Webber who did so much to make my stay in Grand Rapids extremely comfortable and pleasant."

R. H. Lyons, M.D., Syracuse, N. Y. (guest speaker): "I want to tell you how much I enjoyed returning to meet all of my old friends in Michigan. It made a very pleasant reunion for me, and I am delighted that the meeting was considered a success. I am sure I played a very small rôle in it, but it was nice of you to include me."

R. V. Platou, M.D., New Orleans, La. (guest speaker): "Commendations are due all the officers of the Michigan State Medical Society for the excellent conduct of your Annual Session just completed. I am particularly grateful to my ubiquitous host, Dr. Hill of Grand Rapids, who tended to every need."

James B. Costen, M.D., St. Louis, Missouri (guest speaker): "Dr. Flynn and all concerned with your meeting made my visit extremely pleasant, and I enjoyed every part of it. Thanks for a nice visit to Michigan and to your Society."

R. W. TeLinde, M.D., Baltimore, Maryland (guest speaker): "This is to say thank you to my ubiquitous host, James R. Beaton, M.D., of Grand Rapids, who was most attentive during my day in Grand Rapids. I enjoyed meeting the men, particularly those in Obstetrics and Gynecology, at the luncheon at the Peninsula Club."

J. William Boren, Jr., M.D., Marinette, Wisconsin (guest): "I want to take this opportunity to thank you very much for the wonderful time you showed us at Grand Rapids and also to congratulate you on a wonderfully well run convention. I certainly appreciated being included in the meeting."

Richard T. Smith, M.D., Philadelphia (Scientific Exhibitor): "I can never tell you how much pleasure I had out of being in Grand Rapids with you folks. You people are the most wonderful hosts anywhere. The meeting, in my opinion, was a huge success. I enjoyed meeting many of our old friends, and having the opportunity to be with them.

"Thank you for your very generous hospitality. I would be most happy to return to Michigan at any time that I could be of any service on a program and as an exhibitor."

James Milton Robb, M.D., Detroit (MSMS Past President): "I do not believe that any state medical society can compare with ours, and the spirit of cheer and good works is outstanding. This spirit, I might add, is the result of the efforts of you both. You give so much of yourselves. This comes back to the profession in good will and solid support."

John M. Sheldon, M.D., Ann Arbor, Director, University of Michigan Department of Postgraduate Medicine: "I think the meeting was better than ever this year. I am sure this was due to your untiring efforts."

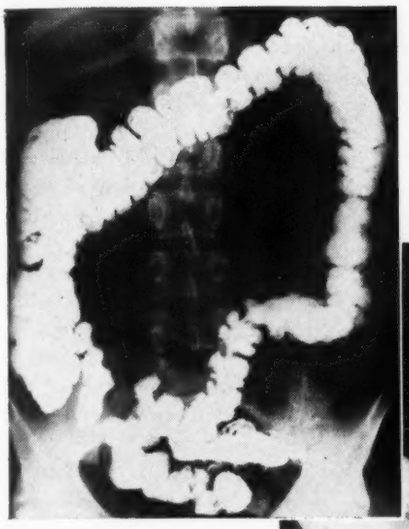
James Gerity, Jr., Adrian, President, Gerity-Michigan Corporation (honored guest): "Thank you very much for the honor bestowed on me at the Officers Night program last Wednesday. It is most reassuring to me and to my associates that the efforts we have made in this field have been appreciated, and you may be certain that we will continue to use all our facilities of radio and television to continue our policies in these matters. We hope to initiate some longer programs in the near future and will surely keep you all advised of our plans."

H. Leon Snow, Lansing, Executive Secretary, Michigan State Dental Association (guest): "It was possible for me to attend only on Wednesday of your Annual Session and I enjoyed attending very much. You certainly have an excellent and an outstanding meeting, of which I know you are proud."

J. D. Jorgensen, Lansing, Executive Secretary, Michigan Funeral Directors Association, Inc. (guest): "I certainly want to express my appreciation for the invitation to attend your convention at Grand Rapids. As a relatively new man in the trade association field, I did want to see your convention as I have heard so many good things about it. Needless to say, it was everything I had heard and more."

Robert J. Lyon, Chicago, Assistant Business and Advertising Manager, American Medical Association (guest): "I just want to tell you how much I enjoyed visiting the MSMS meeting. It was splendidly organized and I'm sure you have grounds for much personal satisfaction in all of the nice things the exhibitors were saying. I enjoyed the meeting very much and our hats are off to you and your Council for the very fine program that was worked out."

METAMUCIL® IN CONSTIPATION



Normal Colon

Ulcerative Colitis

Atonic Colon

Smoothage in Correction of Colon Stasis

To initiate the normal defecation reflex, the "smoothage" and bulk of Metamucil provide the needed gentle rectal distention.

Once the habit of constipation has been established, due to any of a large number of causes, it becomes a major problem. Self-medication with irritant or chemical laxatives, or repeated enemas, usually causes a decreased, sluggish defecation reflex and may result in its complete loss.

Rectal distention is a vital factor in initiating the normal defecation reflex, and sufficient bulk is thus of obvious importance in restoring this reflex. Metamucil provides this bulk in the form of a smooth, nonirritating, soft, hydrophilic colloid which gently distends the rectum and initiates the desire to evacuate. Metamucil demands extra fluid, imparting even greater smoothage to the intestinal contents.

It is indicated in chronic constipation of various types—including distal colon stasis of the "irritable colon" syndrome, the atonic colon following abdominal operations, repressions of defecation after anorectal surgery and in special conditions such as the management of a permanent ileostomy. Metamucil is the highly refined mucilloid of Plantago ovata (50%), a seed of the psyllium group, combined with dextrose (50%) as a dispersing agent.

The average adult dose is one rounded teaspoonful of Metamucil powder in a glass of cool water, milk or fruit juice, followed by an additional glass of fluid if indicated.

Metamucil is supplied in containers of 4, 8 and 16 ounces. G. D. Searle & Co., Research in the Service of Medicine.

SEARLE

WHAT THEY SAID ABOUT THE 1955 MSMS SESSION

A. Paul Burton, Philadelphia, Past President, Medical Exhibitors Association: "Congratulations to you is such old stuff that the words haven't much zip left. In spite of that, I want you to know what a tremendous job you did at putting on the annual party. Believe me, it will live long in the memory of everyone who was there."

M. Joe Hardwick, Bristol, Tennessee, Convention Manager, The S. E. Massengill Company: "Letters have literally been pouring into my office complimenting the Michigan State Medical Society meeting. I write this because the letters which usually follow conventions are not of the complimentary variety. They are usually loaded with complaints and trite comments as to how it could have been better. This happens in spite of the fact that much the same procedure is followed by this office. We never have trouble with the conventions you manage. Each one seems to be 'The Best Yet.' Here is to many more of them.

"Many thanks for your many considerations."

Ed W. Roehm, Indianapolis, Past President, Medical Exhibitors Association: "It is most difficult for me to write a letter of thanks that can possibly adequately cover the magnificence of your State Medical Society's party for MEA.

"I have never attended anything to compare with it. Not only for generosity but for genuine hospitality as well. You certainly did everything to honor your guests and make them fell at home, and you may be sure it will always be one of the highlights of my life. Everything was most enjoyable.

"I doubt if you know I was born and raised in Detroit and did not leave Michigan until 1927. Your party made me proud of my home state and the Michigan State Medical Society."

W. M. Monday, Nutley, New Jersey, Director, Medical Exhibitors Association: "It was stupendous, terrific, colossal! I could add another dozen or two adjectives to try and describe your meeting last week. They still wouldn't adequately convey to you how I feel about this affair. I was truly amazed, and I feel sure that practically everyone who was present feels the same way.

"Please accept my congratulations for holding such a successful affair. I know that these things take a lot of planning, work, and co-operation; and it was evident that all of these important things had been done to make the 25th Anniversary of MEA a wonderful affair.

"I also want to congratulate you for the State Medical Society meeting. As you know, it was the first meeting of MSMS which I have attended, and in all sincerity, I can say it was the best state meeting that I have ever attended. It is clearly evident why the MSMS convention is so well thought of and discussed by exhibitors and physicians alike. Again, please accept my thanks for a delightful visit in Grand Rapids with you and friends of MSMS."

S. Lee Hileman, M.D., Secretary, Wayne University Alumni Association, Detroit: "The Executive Committee of the Alumni Association of the Wayne University College of Medicine wishes to thank you for the very fine co-operation you gave our organization at the recent meeting of the MSMS in Grand Rapids.

"Everyone knows that is your way of doing things, but we wanted you to know that we 'like it that way.'"

S. A. Montgomery, Fremont, Michigan, Gerber Products Co. (President, Medical Exhibitors Association): "Medical Exhibitors Association was signally honored by the Michigan State Medical Society's observance of its 25th Anniversary. Your presentation of the beautifully inscribed Silver Scroll marked a never-to-be forgotten occasion.

"The MSMS Silver Scroll is now, and always will be, a treasured possession of our Association. It will inspire our future officers and directors to even greater service to the medical and allied professions. It will remind these men that MEA was 'born' in Michigan and grew in stature through the unstinted encouragement of your Medical Society.

"We medical exhibitors shall look forward to the next twenty-five years of close association with Michigan State Medical Society."

R. T. Osterlund, New Brunswick, N. J., Secretary, Medical Exhibitors Association: "I'll always remember Thursday night's affair. Obviously, its results were due to much thought and planning. Even when spontaneous however, everything appeared to go smoothly.

"I hope you'll remember the spontaneous part. It clearly showed the high regard that exhibitors have for the Michigan State Medical Society and Bill Burns.

"Thanks for a wonderful experience. As always, your touch made it most enjoyable, more friendly and truly sincere."

Frank M. Rhatigan, Chicago, Secretary, American Surgical Trade Association (Past President, Medical Exhibitors Association): "It was mighty nice again to be a guest at the famous Gridiron Dinner. That, to me, has always been a highlight of the great MSMS Convention—the best among the States."

Fay Burnett, Instant Sanka, White Plains, N. Y. (Member, Board of Directors, Medical Exhibitors Association): "In all my experience, I have never seen a better convention. And those are not idle words. The success of this meeting in large part is due to your untiring and intelligent handling of the exhibitor's part in it. Congratulations on making it run so smoothly, not only from my point of view but from everyone else's who had any contact with you.

"We also recognize that without the co-operation of the physicians you would not be able to carry out your own part. So please convey our appreciation to the members of the Society that work so closely with you.

"To have been present at the convention and experience the hospitality of you and your associates was a dream come true, for I have so long wanted to come to one of your meetings. Again, my deep appreciation for everything that you and the members of the Society did for making it such a worthwhile meeting from the standpoint of the exhibitors."

Helen Beck, White Plains, New York, Instant Sanka (Exhibitor): "You've evidently scored again. Our Miss Burnett has been stuffing your ballot box like mad since her return from the MSMS Annual Session."

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

POLIOMYELITIS VACCINE

As of October 1, all counties in Michigan, except Wayne, and all cities, except Detroit, Dearborn and Bay City, had completed the giving of second injections of poliomyelitis vaccine to children in the first and second grades. Participation in second shots was good, about 90 per cent of those getting the first injections reporting for the second. This concluded the National Foundation part of the program.

Enough vaccine is now in the hands of local health department directors to give first injections to approximately half of the children in the five to nine-year age group who have not received the vaccine. By February 15, all federal funds for purchase of the vaccine must have been committed, and by the end of February all state funds set aside for the same purpose must have been assigned.

For the Record

The polio vaccination program in Michigan began in the summer of 1954 when the state agreed to participate in the field trials of the vaccine. In ten Michigan counties, 52,600 boys and girls received three injections. Half of the children, 26,300, received Salk vaccine and the other half a placebo.

On April 12, 1955 with data from all forty-four participating states analyzed, the Evaluation Center in Ann Arbor announced that the Salk vaccine was found effective, safe and potent.

In the meantime, the National Foundation had contracted with six pharmaceutical houses to purchase enough vaccine for all first and second grade children in the United States, Hawaii and Alaska. Vaccine was to be supplied also for children who had received the placebo in the 1954 field trials and to give booster doses to those who had received the polio vaccine at that time.

By April 18, Michigan had received enough NIH licensed poliomyelitis vaccine to give the first injection to the children in the first and second grades and to those who received the placebo in the ten field trial counties. On May 7, question arose concerning the safety of some of the products of one of the six pharmaceutical houses manufacturing the vaccine, and the Surgeon General recommended temporary halting of the vaccination program.

Since, by May 6, Michigan had completed 325,920 injections of vaccine manufactured by Parke, Davis with no untoward results, it was the decision of the Michigan Department of Health to continue vaccinating children until all the vaccine on hand had been used. It seemed reasonable to assume that if the product being used was safe for nearly a third of a million children, the balance of the same product would be equally safe. As a result of this decision, approximately 30,000 children received their second injections.

From May 7 until late in July, no one knew with certainty when or if enough vaccine would become available to complete the second injections. Finally, in August, enough vaccine was assured, and most of the health jursdictions resumed their programs in spite of the difficulty of rounding up school children who were on vacation.

One Million Cards Will Help Evaluate Vaccination Results

Act 231, Public Acts of 1955 requires that complete data be kept on the status of every vaccinated child in the priority group. These records will provide an opportunity to evaluate the effectiveness of the polio vaccine being used.

The Michigan Department of Health is supplying for the use of local health departments and practicing physicians 3x5 inch printed cards, white for the first injection, pink for the second, and blue for the third. On these cards is space for the residence of the patient by county, name, age, sex, address, site of injection, route, name of manufacturer, lot number and date, and the signature of the physician.

When a physician receives his first allotment of poliomyelitis vaccine, he will be given a supply of cards with the understanding that his vaccine supply will be replenished on the basis of the number of completed and signed cards returned by him to the health department.

The card file will enable state and local health departments to check reported cases of poliomyelitis to determine the vaccine status of the case. The file will also be valuable in determining whether or not booster doses are going to be needed in the future.

BRACHIAL PLEXUS BLOCK ANESTHESIA

(Continued from Page 1331)

8. Moldauer, J.: Tourniquet paralysis syndrome. Arch. Surg., 68:136, 1954.
9. Moore, D. C.: Regional Block. Springfield: Charles C Thomas, 1953.
10. Moore, D. C., and Bridenbaugh, L. D.: Pneumothorax. Its incidence following brachial plexus analgesia. Anesthesiology, 15:475, 1954.
11. Murphy, D. R.: Brachial plexus block anesthesia: An improved technique. Ann. Surg., 119:935, 1944.
12. Wishart, H.: Pneumothorax complicating brachial plexus block anesthesia. Brit. J. Anesth., 26:120, 1954.

. . . . . NEWS MEDICAL

MICHIGAN AUTHORS

Murray R. Abell, Ann Arbor, is the author of an article entitled "Diseases of the Gallbladder: Their Nature and Classification," published in *Canadian Medical Association Journal,* April 15, 1955.

Levona W. Olmsted and **William H. Beierwaltes,** Ann Arbor, are the authors of an article entitled "Thyroidectomizing Dose of Radioactive Iodine in Humans with Malignant Melanoma" published in *Cancer,* March-April, 1955.

S. W. Hoopler, T. G. Kabza, and **R. W. Corley,** Ann Arbor, are the authors of an article entitled "The Effect of Protoveratrine on the Cardiac Output and on Some Regional Circulations in Man," published in the *Journal of Clinical Investigation,* April, 1955.

William U. McReynolds, M.D., Ann Arbor, is the author of an article entitled "Simplified Tangent Screen Examination Using a Recording Scotometer," published in *Transactions of the American Academy of Ophthalmology and Otolaryngology,* May-June, 1955.

Carl E. Schneider, Detroit, is the author of an article entitled "Human Relations in the Medical Profession," published in *Harper Hospital Bulletin,* July-August, 1955.

George Sewell, M.D. and **Sherwin Lutz, M.D.,** Detroit, are the authors of an article entitled "Perineal Punch Biopsy of the Prostate," published in *Harper Hospital Bulletin,* July-August, 1955.

Perry B. Miller, M.D., Ann Arbor, is the author of an article entitled "Treatment of Rheumatoid Arthritis with Prednisone (Meticorten)—A Preliminary Report," published in *Harper Hospital Bulletin,* July-August, 1955.

Gordon H. Hardie, M.D., and **Daniel C. Hunter, Jr., M.D.,** Ann Arbor, are the authors of an article entitled "Skin Necrosis with the Intravenous Use of Norepinephrine," published in the *University of Michigan Medical Bulletin,* July, 1955.

William M. Cutler, M.D., Ann Arbor, is the author of an article entitled "The Ocular Manifestations of Lethal Midline Granuloma: Two Cases," published in the *University of Michigan Medical Bulletin,* July, 1955.

John P. Fotopoulos, M.D., Ann Arbor, is the author of an article entitled "Intravenous Cholangiography: Preliminary Report" published in the *University of Michigan Medical Bulletin,* July, 1955.

J. R. Gamble, E. W. Dennis, W. W. Coon, P. Hodgson, P. W. Willis III, J. A. MaCris, and **I. F. Duff,** Ann Arbor, are the authors of an article entitled "Clinical Comparison of Vitamin K_1 and Water Soluble Vitamin K," published in AMA *Archives of Internal Medicine,* January, 1955.

Henry D. Kaine, Holbrooke S. Seltzer, and **Jerome W. Conn,** Ann Arbor, are the authors of an article entitled "Mechanism of Diurnal Eosinophil Rhythm in Man" published in the *Journal of Laboratory and Clinical Medicine,* February, 1955.

J. Richard Johnson and **Winthrop N. Davey,** Ann Arbor, are the authors of an article entitled "Cortisone, Corticotropin, and Antimicrobial Therapy in Tuberculosis in Animals and Man: A Review," published in the *American Review of Tuberculosis,* October, 1954.

J. Richard Johnson and **Winthrop N. Davey,** Ann Arbor, are authors of an article entitled "Treatment of a Patient with Lupus Erythematosus and Pulmonary Tuberculosis with ACTH, Streptomycin, and Para-aminosalicylic Acid," published in *Annals of Internal Medicine,* May, 1955.

Robert M. Stewart, M.D., Detroit, is the author of an article entitled "Abdominal Pregnancy—Report of Two Cases," published in *Harper Hospital Bulletin,* July-August, 1955.

W. D. Barrett, M.D., Robert Hamburg, M.D., and **W. S. Reveno, M.D.,** Detroit, are the authors of groups of abstracts of papers presented at the 1955 meeting of the American Goiter Association under the title, "Gleanings—1955 Meeting, American Goiter Association." The papers are to be published in full in the *Journal of Clinical Endocrinology and Metabolism* and in the Transactions of the American Goiter Association.

George L. Waldbott, M.D., Detroit, is the author of an article entitled "Ocular Allergy from the Allergist's Point of View," published in *Transactions of the American Academy of Ophthalmology and Otolaryngology,* July-August, 1955. The article was presented at the Fifty-Ninth Annual Session of the American Academy of Ophthalmology and Otolaryngology, September 19-24, 1954, New York.

Noah E. Aronstam, M.D., Detroit, is the author of an article entitled "The Treatment of Occupational or Erg Dermatoses with Titanium Oxide," published in the *Indiana Journal of Dermatology and Venereology,* Bombay, April-June, 1955.

Robert S. Myers, M.D., Vergil N. Slee, M.D., and **Robert G. Hoffman, Ph.D.,** are the authors of an article entitled "The Medical Audit," published in *The Modern Hospital,* September, 1955.

Arthur L. Drew, M.D., Ann Arbor, is the author of an article entitled "Familial Reading Disability," pre-

(Continued on Page 1372)

(Continued from Page 1370)

sented at the Ann Arbor meeting of the Neurosurgical Travel Club, June, 1955, and published in the *University of Michigan Medical Bulletin,* August, 1955.

W. S. Harrison, M.D., Ann Arbor, is the author of an article entitled "Familial Spastic Paraplegia: Three Families," published in the *University of Michigan Medical Bulletin,* August, 1955.

C. J. Stringer, M.D., A. L. Stanley, M.D., R. C. Bates, M. D., and John E. Summers, M.D., Lansing, are the authors of an article entitled "Pulmonary Arteriovenous Fistula," published in the *American Journal of Surgery,* May, 1955.

Martin J. Urist, M.D., South Haven, is the author of an article entitled "Eccentric Fixation in Amblyopia Exanopsia," published in the AMA *Archives of Ophthalmology,* September, 1955.

Richard H. Meade, M.D., Grand Rapids, is author of two original articles, one published in the *American Journal of Surgery,* May, 1955, on "Infected Cystic Diseases of the Lung"; and the other in *Surgery,* August, 1955, entitled "Surgery for Mitrostenosis: Some Aspects of Its Evolution."

* * *

The new $650,000 University of Michigan Kresge Medical Library officially opened its doors Thursday, September 29, 1955, a gift to the University by the Kresge Foundation.

Adjoining the Kresge Medical Research Building, the new medical library is considered one of the finest university medical libraries in the country. It provides space for over 150,000 medical volumes.

Dean A. C. Furstenberg called the library "the fulfillment of a long-standing medical school need." Formerly medical books were divided between the General Library and University Hospital. Additional volumes had been stored in the School of Business Administration.

Contemporary in decor the Kresge Medical Library is equipped with modern furnishings of bleached woods. The color motif is light blue and persimmon. The atmosphere is informal with screened desks for privacy and furniture groupings for small discussions.

An unusual feature is the Rare Book Room, adjacent to the main reading room. Specially constructed glass display cases will house some of the Medical School's two thousand rare books.

The Medical School possesses three outstanding collections of rare medical texts, the Crummer, Warthin, and Pilcher collections. These include a first edition Vesalius, first edition Harvey, and the first collected works of Ambroise Paré.

* * *

The National Foundation for Infantile Paralysis has announced grants and appropriations totaling $1,372,513 for professional education in selected fields, to train doctors and associate medical personnel urgently needed for research and total patient care.

These new awards bring to a total of $21,562,456

(Continued on Page 1374)

(Continued from Page 1372)

the March of Dimes funds authorized since 1938 for professional education, the largest ever undertaken by a voluntary agency. In all, 5,334 scholarships and fellowships have been awarded by the National Foundation from 1938 through August 30, 1955.

* * *

The U. S. Public Health Service made a grant of $63,402 to E. Wendell Hewson and John M. Sheldon at the University of Michgian for a study of atmospheric pollution by aeroallergens. This is from a fund voted by Congress earlier this year for research in air pollution problems.

* * *

"The Fractured Rib," by R. L. Rapport, R. B. Allen, M.D., and C. J. Curry, M.D., which was published in the July, 1955, issue of *Archives of Surgery,* is to be reprinted in Modern Medicine and tape-recorded by Audio-Digest.

* * *

Doctor's Guide—Michigan State Medical Society.—No one knows *all* the answers, but physicians should know enough about the operation of Blue Cross and Blue Shield plans to be able to answer the questions their patients ask. To help doctors bone up on the facts about health insurance coverage, a twelve-page booklet (copy in the Exchange) recently was prepared as a cooperative effort by the Michigan Hospital Service, Michigan Medical Service and the Michigan State Medical Society. *"Doctor's Guide to Blue Cross and Blue Shield"* is written in easy-to-follow Q. and A. form; it discusses the doctor's responsibility to health insurance programs, suggests how to handle patients who ask for hospitalization for convenience rather than need and reviews Blue Cross and Blue Shield advertising.—AMA *PR Bulletin,* September, 1955.

* * *

George F. Lull, M.D., secretary-general manager of the AMA, attending the World Medical Association meeting, gave an interesting account of the recent "strike" by Vienna doctors protesting a proposed law extending government medicine. The two-day stoppage, called by the Austrian Medical Association late in August, was given considerable publicity in this country.

The "strike" took place on August 25 and 26 when the physicians decided not to see any patients except in emergencies. Dr. Lull said that in talking with Vienna physicians he learned that the "strike" came about after Parliament decided that it wanted new laws covering social security. The old laws were based on Nazi law.

"Nearly all of the insurance companies are controlled by trade unions," Dr. Lull wrote, "and the president of the Hauptverband, which is the over-all controlling body of the insurance companies, is also a member of Parliament, a leading member of the Socialist party, and the president of the trade unions.

"The proposed changes in the law were mapped out

(Continued on Page 1376)

(Continued from Page 1374)

by the officials of the Hauptverband. The trouble really started when it was found that nearly all of the favorable paragraphs of the old law were deleted and all of the objectionable paragraphs retained with many more added.

"The first demonstration took place on June 18, when the general assembly of Austrian physicians, numbering 5,000, met in Vienna and marched the streets to the chancellery."

Dr. Lull said no one suffered from actual lack of medical care during the "strike," and the total effect was that public opinion was built up in favor of the physicians.

The general feeling, according to Dr. Lull's letter, is that the physicians will get what they want when the law is finally modified.

The doctors' main objection is that government-proposed law would leave them at the mercy of the state-run health insurance companies. The law, as proposed before the demonstration, would give the companies the right to appoint some doctors and deny patients to others. —AMA Secretary's Letter.

* * *

County and State Medical societies and their auxiliaries are invited to sponsor the 1965 Essay Contest for high school students. The subject chosen is "The Advantages of Private Medical Care."

The AAPS's Freedom Programs, Inc., will award six national prizes: first, $1,000; second, $500; third, $100; fourth, fifth and sixth, $25.00 each.

The contest is open to all students of the 10th, 11th and 12th grades of public and parochial schools. This program is meant to achieve understanding on why the American people enjoy the highest quality of medical care in the world.

Further information regarding the AAPS Contest should be addressed to Dr. Mal Rumph, Chairman, AAPS Essay Contest Committee, Suite 318, 185 North Wabash Avenue, Chicago 1, Illinois.

* * *

Carl M. Peterson, M.D., secretary of the AMA Council on Industrial Health since its organization in 1938, was fatally injured when a private plane in which he was riding crashed and burned on a farm near Asheville, N. C., airport. Dr. Peterson, fifty-five, was taken to Pardee Memorial Hospital at Hendersonville, N. C., where he died on September 27.

Dr. Peterson was a fine administrator, whose important stimulus to better practices in the industrial health field will be missed.

* * *

The Detroit Pediatric Society's calendar includes five additional meetings throughout the society year: *December 8,* a joint meeting with the Detroit Ophthalmological Society at the Harmony Club, Detroit; *January 18,* joint meeting with the Detroit Branch, American Urological Society at Harper Hospital, Detroit; *March 7,* Clinic at Henry Ford Hospital with dinner at Park-Shelton Hotel, Detroit; *May 23,* joint meeting with Chil-

(Continued on Page 1378)

(Continued from Page 1376)

dren's Hospital—Annual Clinic Day, with dinner at Park-Shelton Hotel, Detroit; *June*, meeting at Wayne County Training School, with the wives of members.

* * *

"Our nation of 165,000,000 people is so large that government agencies cannot often deal directly with individuals. In all larger problems, associations have long been invaluable. Especially is this true in their rôle of expressing the attitudes of the average 'small businessman'—often termed 'the foundation stone of American democracy.' "—From American Trade Association Executives Annual Report, 1955 Convention, Mackinac Island, Michigan.

* * *

William S. Reveno, M.D., Detroit, is Chairman of the Program Committee for the 1956 Michigan Clinical Institute, to be held at the Sheraton-Cadillac Hotel, Detroit, March 7-8-9, 1956.

The theme of the 1956 Institute is *"All That's New and Fit to Use."*

* * *

The Detroit Department of Health (Joseph G. Molner, M.D., Commissioner) has received a $20,000 grant from the United States Public Health Service to start a special program of research into air pollution problems. The overall federal program of ten grants totals $295,367.

* * *

Few physicians over sixty-five retire, according to a recent poll conducted by *Medicine in the News*, a monthly publication sponsored by the Schering Corporation of Bloomfield, N. J. As a result of a questionnaire sent to all M.D.'s over sixty-five, *Medicine in the News* found that eight of every ten are still in active practice; one of every two sees more than forty patients in an average week; one of every four treats patients of all ages; one of every two sees chiefly patients between forty and sixty years of age; and one of every four will handle all types of cases; three of every four do not accept surgical cases.

Overall results of the polls showed that while many physicians restrict their activities after sixty-five, general retirement at that age for the majority seems not only undesirable, but impossible.

* * *

"Going Our Way?" is the title of a new color motion picture, produced with a Hollywood cast headed by Marshall Thompson and released October 1 for showings before medical, pharmaceutical and allied professional groups. The thirty-minute film indicates on one hand the story of a new doctor trying to get started in a small town whose inhabitants think he is too young to have

(Continued on Page 1380)

(Continued from Page 1378)

had enough experience; on the other, it is the large story of medicine and pharmacy and the opportunities for service that exist in the health professions. Financial sponsor of the film is Parke, Davis & Co. A number of the shots were made in the PD factory in Detroit. For bookings, contact John A. MacCartney, Trade Relations Manager, Parke, Davis & Co., Detroit 32, Michigan. In a recent interview, Mr. MacCartney stated: "Running all through the picture is the challenge to young people to consider a career for themselves in medicine or pharmacy."

* * *

The American College of Physicians, Michigan Division, will hold a Michigan regional meeting Saturday, December 3, 1955, in the Sheraton-Cadillac Hotel, Detroit. The scientific program will run from 9:00 a.m. to 4:30 p.m., followed by a reception and banquet at 6:30 p.m.

All members of the medical profession are cordially invited to attend, and a particular invitation is extended to interns and residents.

* * *

AMA Tour to Nassau.—The Jungle Club in Nassau will provide an unusual setting for luncheon and a medical meeting on December 7 for members of the American Medical Association who accept an invitation extended recently by the Bahamas Medical Association.

So that physicians may accept the invitation, an Official Tour to Nassau has been scheduled for the week of December 2-10, immediately following the AMA Clinical Session in Boston.

A certificate of attendance at a medical meeting will be issued to each physician, which may affect partially the fiscal effects of Christmas shopping among the tempting array of British and European imports at bargain prices.

A full calendar of sightseeing, sporting events, and social functions has been arranged for physicians and their wives, assuring tour members of a delightful vacation amidst the colorful surroundings of Nassau.

Travel arrangements have been made co-operatively by United Air Lines, British Overseas Airways, Nassau Development Board, and International Travel Service, Inc., of Chicago.

Official tour folders may be secured by writing to AMA Nassau Tour Headquarters at 35 East Monroe Street, Chicago 3, Illinois.

* * *

The corporate name of Winthrop-Stearns, Inc., has been changed to Winthrop Laboratories, Inc., according to an announcement of its president, Theodore G. Klumpp, M.D.

(Continued on Page 1382)

(Continued from Page 1380)

50-Year Club of 1955—Eighteen MSMS members were inducted into the 50-Year Club in Officers' Night ceremonies at the meeting in Grand Rapids in September. Eleven members who were present to receive the honor are pictured on Page 1358 of this issue, as follows:

(Seated) R. S. Jiroch, M.D., Saginaw; W. J. Smith, M.D., Cadillac; A. H. Miller, M.D., Gladstone; Christopher G. Parnall, M.D., Ann Arbor.

(Standing) R. C. Lyle, M.D., Bridgeport; Cyrus B. Gardner, M.D., Lansing; Alvin H. Seibert, M.D., Grosse Pointe Park; Robert A. C. Wollenberg, M.D., Detroit; Donald H. McRae, M.D., Detroit; Nathaniel Gates, M.D., Detroit, and A. J. Zaremba, M.D., Bay City. Not present were: William E. Barstow, M.D., St. Louis (now deceased), 1949-50 MSMS President; Clark D. Brooks, M.D., Detroit; Benjamin T. Goodfellow, M.D., Flint; Fred J. Hohn, M.D., Saginaw; Henry A. Luce, M.D., Detroit, (now deceased) MSMS 1938-39 President; H. T. Sethney, M.D., Menominee and Leslie L. Willoughby, M.D., Flint.

* * *

"A Report from the Medics" was the title of the morning meeting of October 14 at the 1955 Volunteer Leadership Training Conference of the American Cancer Society, Michigan Division and Southeastern Michigan Division co-operating with the Michigan Cancer Co-ordinating Committee. Harry M. Nelson, M.D., Detroit, presided. Speakers were James E. Lofstrom, M.D., Detroit; Owen H. McConnell, D.D.S., Grand Rapids; E. Thurston Thieme, M.D., Ann Arbor; and Gerald S. Wilson, M.D., Detroit.

At the Friday medical luncheon, C. Allen Payne, M.D., Grand Rapids, chairman of the Michigan Cancer Co-ordinating Committee, was toastmaster. Wm. Baum, M.D., of Bethesda, Maryland, was guest speaker on "The Role of Government in the Cancer Control Program."

* * *

The New Orleans Graduate Medical Assembly will be held in the Municipal Auditorium in New Orleans, February 27-March 1, 1956. On the program is Joseph A. Johnston, M.D., Detroit.

For complete program and information, write Maurice E. St. Martin, M.D., 1430 Tulane Avenue, New Orleans 12, Louisiana.

* * *

Richard H. Meade, M.D., Grand Rapids, has been elected President of the American Association for Thoracic Surgery.

Congratulations, President Meade!

* * *

The Michigan Foundation for Medical and Health Education, Inc., is the financial sponsor of the annual Biddle Lecture, presented at Annual Sessions of the Michigan State Medical Society. The funds for the

(Continued on Page 1384)

(Continued from Page 1382)

Biddle lecturer's expenses and honorarium come from a grant made to the Foundation by the late Andrew P. and Grace M. Biddle. Dr. Biddle was a leading dermatologist in Detroit and President of both the Wayne County Medical Society and the Michigan State Medical Society, prior to his death on August 2, 1944.

* * *

President W. S. Jones, M.D., of Menominee, addressed the Saginaw County Medical Society on November 15 on the subject, "What You Get for What You Pay."

Secretary L. Fernald Foster, M.D., Bay City, also spoke at this meeting on "Which of the Twenty-six Projects Do You Want?"

* * *

Motion pictures are available without cost, through the Michigan Heart Association, for showings before lay groups in schools or at club meetings and other organizations. Physicians interested in some fourteen excellent heart films may secure them by writing the Michigan Heart Association, 3919 John R Street, Detroit 1, Michigan (telephone TEmple 1-8550).

* * *

Belle Moss, manufacturing chemist of Detroit, was an exhibitor at the 1955 Annual Session in Grand Rapids, whose description was received too late for publication in the program of the meeting. This chemist displayed DIAPREX, "for effective treatment and prevention of diaper rash, useful also for adults as well as for children in heat rash and chafing; also CARBAX for relief in all types of eczemas especially in patients overmedicated with tar and other such preparations."

* * *

The American College of Chest Physicians offers three cash awards for the best contributions prepared by undergraduate medical students on any phase in the diagnosis and treatment of chest diseases (heart and/or lungs). The first prize is $250.00; second prize $100.00; and third prize $50.00—with each winner receiving a certificate of merit. For additional information and entry blanks, write American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

* * *

Paul M. Ireland, M.D., has been appointed manager of the Veterans Administration Hospital in Ann Arbor. Dr. Ireland received his M.D. degree from the University of Michigan in 1920 and served his internship in the U. of M. Hospital. He is a Diplomate of the American Board of Surgery (1939).

* * *

Thomas H. Alphin, M.D., has returned as deputy director of the Washington office of the American Medical Association. He served as assistant director for two years, February, 1953, to March, 1955, and then returned to the University of Missouri School of Medicine to become assistant dean of the faculty of

(Continued on Page 1386)

(Continued from Page 1384)

medicine and associate professor of anatomy. In returning to Washington on September 19, Dr. Alphin assumed major administrative responsibilities.

* * *

All physicians should be alerted to the fact that case register loads of active tuberculosis are higher now than at any time in the last few years. With the improved therapy of tuberculosis, case loads obviously will continue to be heavy for some time. Tuberculosis, therefore, is far from being a conquered disease. Physicians should regard it as a duty, both in their practice and in their public utterances, to push for adequate and complete eradication of tuberculosis with whatever tools are feasible and available.—MICHAEL L. FURCOLOW, M.D., Editorial, *Journal-Lancet,* April, 1955.

* * *

John A. MacCartney, trade relations manager for Parke, Davis and Company, Detroit, has been named president-elect of the American Pharmaceutical Association. Mr. MacCartney will be installed at the group's annual convention in Detroit the week of April 8, 1956.

* * *

Robert Drews, M.D., of Detroit, was elected Historian at the New York meeting of the Academy of Psychosomatic Medicine.

MICHIGAN MEDICAL SERVICE ANNUAL MEETING

The annual meeting of the Board of Michigan Medical Service was held in Detroit on October 12, 1955, and the following were elected:

Wilfrid Haughey, M.D., Battle Creek.....President
L. Fernald Foster, M.D., Bay City.....Vice President
Jay C. Ketchum, Detroit.....Executive Vice President
Waldo I. Stoddard, Grand Rapids.....Treasurer
Robert H. Baker, M.D., Pontiac.....Secretary
Miss Florian Paulson, Detroit.....Assistant Secretary

The Executive Committee is as follows: Wilfrid Haughey, M.D., Battle Creek, chairman; Robert H. Baker, M.D., Pontiac; L. Fernald Foster, M.D., Bay City; Arch Walls, M.D., Detroit; D. Bruce Wiley, M.D., Utica; George W. Slagle, M.D., Battle Creek; W. I. Stoddard, Grand Rapids, Ronald Yaw, Grand Rapids, and John Ried, Lansing.

The Finance Committee is as follows: W. I. Stoddard, Grand Rapids, chairman; Earl I. Carr, M.D., Lansing; W. A. Hyland, M.D., Grand Rapids; R. N. Long, Detroit, and Wilfrid Haughey, M.D., Battle Creek.

The Medical Advisory Committee is composed of Robert H. Baker, M.D., Pontiac, chairman; G. Thomas McKean, M.D., Detroit; Bradley M. Harris, M.D., Ypsi-

(Continued on Page 1388)

(Continued from Page 1386)

lanti; John M. Wellman, M.D., Lansing, Carleton Fox, D.D.S., Detroit; E. C. Baumgarten, M.D., Detroit; Joseph F. Beer, M.D., St. Clair; James B. Blodgett, M.D., Detroit; C. K. Hasley, M.D., Detroit; W. H. Huron, M.D., Iron Mountain; Ellery A. Oakes, M.D., Manistee; Philip Riley, M.D., Jackson; G. W. Slagle, M.D., Battle Creek; D. W. Thorup, M.D., Benton Harbor; Arch Walls, M.D., Detroit; and D. Bruce Wiley, M.D., Utica.

TO ALL MY PATIENTS

About a year ago the AMA suggested a placque for display in the office or reception room of the doctor with this heading, and the Michigan Medical Service furnished placques of that nature to all of our members.

The AMA is now publishing a twelve-page pamphlet to be distributed to patients. These may be obtained without charge from the AMA office, 535 N. Dearborn Street, Chicago, Illinois.

THE TAX TAKE

A recent chart published in conjunction with a *Chicago Tribune* editorial graphically discloses that a single person without dependents, earning $2,000 a year, works until March 14 of each calendar year to complete paying his taxes; a person with a $5,000 income works until March 22; a person with $100,000 annual income, until September 3, and a person with $500,000 income, until November 13.

MEDICAL TELEVISION SHOWS

Produced by Michigan Health Council

Sept. 1 (WKAR-TV)—Health Aspects of Civil Defense
John Griffin, Lansing
Sept. 4 (WJBK-TV)—Bathing Time for Babies
Film
Sept. 8 (WKAR-TV)—School Health
Robert Koopman, Lansing
Sept. 11 (WJBK-TV)—Blood Types
Elmer R. Jennings, M.D., Detroit
Sept. 15 (WKAR-TV)—Medical Assistants
Doris Jarrad, Lansing
Sept. 18 (WJBK-TV)—Common Disorders of Aging Skin
Alice E. Palmer, M.D., Detroit
Sept. 22 (WKAR-TV)—Nursing in Michigan
Hazel Gabrielson, Lansing
Sept. 25 (WJBK-TV)—Rabies Control in Detroit
Joseph Molner, M.D., and Robert F. Willson, DVM., Detroit
Sept. 29 (WKAR-TV)—Red Cross Blood Program
J. H. Venier, M.D., Lansing

DOCTOR LOCATIONS

Through October 1, 1955

Placed by Michigan Health Council

Name	*Opened Practice in*	*Approximate Date*
Girard Veenschoten, M.D.	Hesperia	August 15
Robert P. Rogers, M.D.	Brighton	September 1
C. K. Dettman, M.D.	Grand Ledge	September 1

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

STRESS SITUATIONS. Edited by Samuel Liebman, M.D., Medical Director, North Shore Health Resort, Winnetka, Illinois; Clinical Assistant Professor of Psychiatry, University of Illinois College of Medicine. Philadelphia and Montreal: J. B. Lippincott Company, 1955. Price, $3.00.

POMP AND PESTILENCE. Infectious Disease, Its Origins and Conquest, by Ronald Hare, M.D., Professor of Bacteriology in the University of London at St. Thomas's Hospital Medical School. New York: The Philosophical Library, Inc., 1955. Price, $5.75.

EARLY CARE OF ACUTE SOFT TISSUE INJURIES. By the Committee on Trauma. First edition. Chicago: American College of Surgeons, 1955.

AN OUTLINE OF THE TREATMENT OF FRACTURES. By the Committee on Trauma. Revised and amplified, Fifth edition. Chicago: American College of Surgeons, 1954.

FRACTURES IN CHILDREN. By Walter Putman, A.B., M.D., F.A.C.S., Chairman of the Orthopaedic Section, Milwaukee Children's Hospital; Attending Staff Surgeon, Columbia Hospital, Johnson Emergency Hospital, Milwaukee; Consulting Staff, Milwaukee County Hospital; Member of the American Orthopaedic Association, American Academy of Orthopaedic Surgeons, Société Internationale de Chirurgie Orthopédique et de Traumatologie, Honorary Member, Deutsche Orthopädische Gesellschaft. Baltimore: Williams and Wilkins Company, 1954. Price, $9.50.

THE CIBA COLLECTION OF MEDICAL ILLUSTRATIONS. Volume 2. A Compilation of Paintings on the Normal and Pathologiu Anatomy of the Reproductive System. Prepared by Frank H. Netter, M.D. Edited by Ernst Oppenheimer, M.D., Foreword by John Rock, M.D., Clinical Professor of Gynecology, Harvard Medical School. Commissioned and published by Ciba. Summit, New Jersey: Ciba Pharmaceutical Products, Inc., 1955. Price, $13.00.

CLINICAL ORTHOPAEDICS. Anthony F. DePalma, Editor-in-Chief, with the assistance of the Associate Editors and the Board of Advisory Editors. Number 4. Philadelphia, London, Montreal: J. B. Lippincott, 1955. Price, $7.50; sustaining $5.00.

DOCTORS IN THE SKY. The Story of the Aero Medical Association. By Robert J. Benford, M.D., Colonel, Medical Corps, United States Air Force. Springfield, Illinois: Charles C Thomas, 1954. Price, $8.75.

PROLONGED AND PERPLEXING FEVERS. By Chester S. Keefer, M.D., Physician-in-Chief and Director, Evans Memorial, Massachusetts Memorial Hospitals; Wade Professor of Medicine, Boston University School of Medicine; and Samuel E. Leard, M.D., Assistant Visiting Physician and Assistant Member, Evans Memorial, Massachusetts Memorial Hospitals; Instructor in Medicine, Boston University School of Medicine. Boston-Toronto: Little, Brown and Company, 1955. Price, $5.50.

(Continued on Page 1392)

(Continued from Page 1390)

PREMATURE INFANTS: A Manual for Physicians. By Ethel C. Dunham, M.D., formerly Associate Clinical Professor of Pediatrics, Yale University School of Medicine; Director, Division of Research in Child Development, U. S. Children's Bureau; and Consultant in Pediatrics, World Health Organization, Geneva, Switzerland. Second edition, completely revised and reset. New York: Hoeber-Harper, 1955. Price, $8.00.

This second edition covers very well the new developments in the care of the premature infant. The book should be available in every general hospital library for staff instruction.

No book can be completely up to date. In this edition, the Public Health statistics are necessarily no later than 1948-1950. The latest recommendation on oxygen therapy in the prevention of retrolental fibroplasia are not available, but anticipated.

The author covers all aspects of care very well and, by evaluating all controversal points, really helps to orient the reader. R.S.S.

PROLONGED AND PERPLEXING FEVERS. By Chester S. Keefer, M.D., Physician-in-Chief and Director, Evans Memorial, Massachusetts Memorial Hospitals; Wade Professor of Medicine, Boston University School of Medicine; and Samuel E. Leard, M.D., Assistant Visiting Physician and Assistant Member, Evans Memorial, Massachusetts Memorial Hospitals; Instructor in Medicine, Boston University School of Medicine. Boston-Toronto: Little, Brown and Company, 1955. Price, $5.50.

The pharmaceutical houses have laid at our disposal a spectrum of antibiotics which well control most of the infection processes, but in many instances we are confronted with febrile entities which do not respond to the antibiotics. This may be due in part to lack of proper etiologic diagnosis or febrile processes due to non-infectious agents. Despite the tremendous number of antibiotics available, it behooves us to make a correct etiologic diagnosis when we are confronted with unexplained pyrexia.

This text is an approach to unexplained pyrexia. The contents are divided into three sections of diagnostic studies, infections and non-infections, causes of unexplained pyrexia. The bibliography is exhaustive. This is an excellent text on a perplexing problem. V.A.L.

THE BIOLOGICAL EFFECTS OF TOBACCO, With Emphasis on the Clinical and Experimental Aspects. Edited by Ernest L. Wynder, M.D., Head, Section of Epidemiology, and Associate, Sloan-Kettering Institute for Cancer Research. Foreword by Joseph Garland, M.D., Editor, *The New England Journal of Medicine*. Boston-Toronto: Little, Brown and Company, 1955. Price, $4.50.

The lay public, during the past few years, has been caught in a cross fire between medical data and tobacco companies' publicity. If they are not confused as to the effects of smoking on the human body, it is a wonder.

There is no single cause of cancer, and many delicate

and painstaking studies have been carried out as to the patho-physiologic effects of smoking on the human body. Articles by leading investigators contradict each other.

It is time to call a spade a spade and let the chips fall where they may. We won't influence the great American habit of smoking. If there is a causal relationship, let it be known. No line of delineation has been drawn, no conclusions drawn which there should be.

This analysis by leading collaborators deals with the chemistry, pharmacology of tobacco contents and their influence on the cardiovascular, gastrointestinal tract, neoplastic disease and in the field of allergy.

There is no definite answer as to the question of whether to smoke or not to smoke. However, the text is worth reading and adds to our knowledge concerning the cause and effect that tobacco produces.

V.A.L.

BEDSIDE DIAGNOSIS. By Charles Seward, M.D., F.R.C.P. (Edin.), Physician, Royal Devon and Exeter Hospital; Consulting Physician, Princess Elizabeth Orthopaedic Hospital, West of England Eye Infirmary and the Ministry of Pensions; Honeyman Gillespie Lecturer; Late Advisor in Medicine to Eastern Command, India; Deputy President, Review Medical Board, India. With a Foreword by Sir Henry Cohen, M.D., D.Sc., LL.D., F.R.C.P., F.F.R., Professor of Medicine, University of Liverpool. Third Edition. Edinburgh and London: E. S. Livingstone, Ltd., 1955. Price, $4.00.

One of the prices we pay because of advances in diagnostic procedures and methods is that it has a tendency to make us lax and depend less and less on good sound basic interrogation of patients and a careful physical examination. Given a good history and physical examination report, 95 per cent of problems can be diagnosed without laboratory aids.

Bedside diagnosis will remain the most important weapon a physican will ever have no matter what comes forth in the fields of diagnostic tools. It is something we are all indoctrinated with in medical school curriculum and we should endeavor to gather finesse as we practice medicine rather than let it become obsolete or decay.

This third edition of Bedside Diagnosis is small, complete, well organized, and returns an abundance of diagnostic pearls which may have been lost or forgotten. It is complete with tables of normal values, well indexed and harmonious.

This text can be recommended for medical students, interns, residents and the practicing physician.

V.A.L.

PROCEEDINGS OF THE THIRD MEDICAL CONFERENCE OF MUSCULAR DYSTROPHY ASSOCIATION OF AMERICA, INC., New York, N. Y., October 8 and 9, 1954.

This volume is a record of the proceedings of the Third Medical Conference of Muscular Dystrophy Association of America held in New York, October 8 and 9, 1954. It originally appeared in the *American Journal of Physical Medicine*, February, 1955.

The Muscular Dystrophy Association was formed to aid and to cure those persons afflicted with "muscular dystrophy or from any other similar or allied diseases." Though no effective treatment has yet been reported, the Association has fostered and encouraged fundamental research into the basic mechanism of muscle function. Clinical investigation in conjunction with these basic studies has likewise been given attention.

This book would indicate that these goals have been kept clearly in mind during the Third Medical Conference. The papers presented were grouped into six symposia and of these, only two dealt with the clinical aspects. The other covered "Contracture of Muscle," "Basic Muscle Chemistry, Physiology and Pharmacology," "Degeneration, Regeneration and Growth of Muscle," and "Metabolic Alterations."

This healthy approach to a difficult and challenging problem adds much to what is known about the muscle cell and its activity. Thus this volume is an excellent review of the present status of the problem and should be in the library of all those dealing intimately with the problems and disorders of muscle function. In addition, it contains much interesting material for those interested in the emotional and social aspects of muscular dystrophy and similar chronic disabling disorders.

F.O.M.

ASCLEPIADES. His Life and Writings. A Translation of Cocchi's Life of Asclepiades and Gumpert's Fragments of Asclepiades. By Robert Montraville Green, M.D., Emeritus Professor of Anatomy, Harvard Medical School, Boston, Massachusetts. New Haven, Connecticut: Elizabeth Licht, Publisher, 1955. Price, $6.00.

This is something entirely new. The Asclepiades history has come down in snatches through the ages. There have been twenty-seven men with that name or title. One has been chosen who passed on Hippocrates' learning. Galen picked up both and preserved them for posterity. There has been no book in English since 1762. Dr. Antonio Cocchi, Professor of Anatomy in Florence, Italy, wrote a life history and translation which was translated into English.

Christian Gottlieb Gumpert, while at the University of Weimar, gathered all fragments of ancient medicine and wrote a book published in 1794. These two authors have preserved all the known references and quotations. Their work is hereby translated into English. It is extremely interesting reading and spots many theories as ancient belief.

Atoms, molecules and corpuscles are explained. The book deserves a place in any historial library.

Classified Advertising

$2.50 per insertion of fifty words or less, with an additional five cents per word in excess of fifty.

M.D. NEEDED at once for small clinic for outpatient service in Northern Michigan community; population including summer residents approximately 1250; 200 employed in single industry. Clinic equipped, x-ray, has graduate nurse. Nearest doctor 35 miles; hospital 60 miles. Locum tenens December 1 to May 1 or permanent basis. Will try to meet income requirements. Reply Box 7, 606 Townsend Street, Lansing 15, Michigan.

EAST LANSING: New four-unit, modern, air conditioned, medical building located just across the campus from Michigan State University. One suite of five rooms still available for physician. Write or call Hicks Bros. Realty Co., 313 E. Grand River Avenue, East Lansing, or phone EDgewood 2-3011.

PHYSICIAN WANTED: Excellent location for the right doctor to do private general practice independently, with the possibility of associate relations with established surgeon. A well-equipped and staffed 50-bed hospital located in Michigan, below the Straits, is available to the community. Write: Box 4, 606 Townsend St., Lansing, Michigan.